LEADERSHIP META-COMPETENCES FOR THE FUTURE WORLD OF WORK: AN EXPLORATIVE STUDY IN THE RETAIL INDUSTRY

by

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ABSTRACT

The purpose with this study is to:

- Define the paradigm of the future business environment and world of work from a systems perspective;
- Define the nature and work of future leaders within the future environment and subsequently to develop a leadership meta-competence model for the future business leader; and
- Validate this leadership meta-competence model within the South African retail environment.

To achieve this purpose the literature on the emergence of the future world and the rationale of conducting research from a futuristic paradigm was investigated. The value of this phase of research lies in the conclusion reached that the traditional approaches towards leadership no longer address the rapid social, cultural and organisational changes that are occurring globally. It is therefore proposed that the future organisation is viewed as a complex adaptive social system and that the defined futuristic model regarding the future world of work also holds true for the future world of retail.

Following this the study defines the nature and work of future business leaders, with specific emphasis on the South African retail industry. The study reaches the conclusion that based on this literature review it can be argued that the future business leader could function at different levels of complexity, increasing at each organisational level. The increasing task complexity is a function of the uncertainties created by the necessity to deal with a more encompassing and turbulent environment as a leader moves up the hierarchy.

The next step in the research involves the development of a conceptual model for defining leadership competencies that could be considered important for the future organisation, with specific reference to the South African retail environment. Based on this model, leadership competencies across the competence categories and complexity levels were articulated. Having identified the competencies, the next phase involved the detailed definition of the competencies in terms of levels

of complexity as well as the typical behavioural evidence of the presence or absence of competence.

A questionnaire assessing current and future leadership competences was designed based on the detailed competency descriptors. This questionnaire was completed by 101 respondents from various retail industries.

The resultant data was analysed and the results indicated that there is a difference in perception about the current and future definitions of the nature and work of business leaders, where Level II work behaviour will become relatively less important in the future and Level III and IV work behaviour show increasing importance for the future retail business leader.

The study concludes with recommendations for organisations and business leaders operating within the emerging future world of work, as well as some specific issues relating to the research process for research of this nature.

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CHAPTER 1: ORIENTATION TO THE RESEARCH

1. BACKGROUND TO THE STUDY

Burke and Cooper (2003) suggest that some of the dramatic changes affecting work and the modern organisation include increased global competition, the impact of information technology, re-engineering of business processes and the increasing disappearance of the job as a fixed collection of tasks. The purpose of this chapter is to briefly discuss the changing world of business and explore the possibility of making predictions regarding the future world of work. This will form the basis for arguing that, due to the complexity and speed of change, the nature and work of leaders also need to be revisited at a very fundamental level.

1.1. Introduction

The works of Ackoff (1999), Carpa (2003) and Wheatley (1999) propose the rethinking of the manner in which organisations plan and execute work in the emerging future, while managers and leaders often ask why they should prepare for the future when it is impossible to know what to be prepared for (Rethinking corporate strategy, 2003:65). Weingand (1995) argues that today's speculations on the future have moved from the realm of fantasy or literary allusion into the pragmatic world of organisational need. Tomorrow needs to be explored in order to more fully understand the demands of today and the critical decisions that must be made for the future. Weingand (1995) further argues that it is no longer enough to wonder what the future might bring; it is necessary to critically assess potential future scenarios and incorporate well-considered forecasts into today's planning.

It can be argued from the above that even though the future is uncertain, organisations that study potential futures, share knowledge and encourage collective learning are more likely to survive the test of time. Peters (1992:483) supports this argument by suggesting that organisations don't only need to become "learning organisations", but be able to innovate on a continuous basis.

1.2. The changing world of business

The twenty-first century promises to be turbulent and will lead to changes in legal and popular concepts about organisations (Starbuck, 2005:48). Organisations find themselves midstride between an old and new era, and have not yet found their way (Nicol in Parker, 1998:1). It is also evident that the changes surrounding organisations are not mere trends but the workings of large, unruly forces: globalisation and increased international competition (Kiggundu, 2002; Moon & Bonny, 2001), cross national strategic alliances and mergers, privatisation, outsourcing, information technology innovations, the increasing short term work contract (Cooper, 2005; Stewart, 1993) and changing work ethic and culture (Ulrich, Zenger, & Smallwood, 2003).

These drivers are leading to an increasingly chaotic and complex world of work (Cairnes, 2004; Hite, 1999 & Kraut & Kormann, 1999) and "…all are happening at the same time – and fast" (Stewart, 1993:44). From the literature it can be assumed that these key drivers will have a profound impact on how organisations operate and individuals behave.

1.3. Studying the future business environment

From the background sketched above two main themes can be identified:

- Is it possible to make predictions regarding or to describe, the future business environment and the world of work?
- Should research regarding futuristic studies follow a specific framework, and if so what framework should be utilised to study the future?

The first question is answered by Roux and Du Toit (2003:1-9) who are adamant that it is impossible to "predict" the future. Future research is the disciplined practise of establishing facts objectively and making judgements of the possible or likely outcomes of the current dispensation. Science attempts to forecast the future and according to Jantsch (1967), as quoted in Masini (1978:54-55) a forecast is a "probabilistic statement on a relatively high confidence level about the future".

It is clear from the above that the future cannot be predicted, but by applying the disciplined practice of applying facts objectively it is possible to forecast the future or determine the likely outcomes of a specific scenario. It can further be argued that futuristic research requires a specific framework.

Roux and Du Toit (2003:1-30) put forward a provocative argument that the best way to manage the growing complexities of the Twenty First Century society is through developing a "systems thinking" capability. A similar argument was put forward by Senge (1990:55) who state "from an early age we're taught to break apart problems in order to make complex tasks and subjects easier to deal with. But it creates a bigger problem… we lose the ability to see the consequences of our actions, and we lose a sense of connection to a larger whole." From this perspective it can be logically concluded that a systems perspective could be a useful framework for analysing and discussing the future and perhaps even the future world of work.

A system is a "whole" that cannot be divided into independent parts, because the behaviour of the parts and their effect on the whole depends on the behaviour of all the parts interacting with one another (Gharajedaghi & Ackoff, 1985). ""Systems thinking" implies thinking about the world outside ourselves and doing so by means of the concept "system." It's the conscious use of the particular concept of wholeness captured in the word "system" to order our thoughts" (Checkland: 1981: 3-4).

Organisations can also be viewed as systems and even as systems within systems. Haines (1998:14) is of the opinion that by viewing organisations as levels of system within, and colliding with other systems, "…we align ourselves with the principles of openness, interrelation and interdependence…". Both Scott (1981:22) and Verwey and Verwey (2003:77) view organisations as open social systems that are constantly in interaction with a broader society, while simultaneously shaping and being shaped by broader social forces.

Taking the above into account it can be argued that an organisation and the future world of work can be studied as an integrated open system with dependencies and

interdependencies. While not claiming to be predictive, futures research can develop intelligent forecasts of the future business organisation, indicating strategies for working toward desired destinations. It is therefore suggested that the future business environment is explored from a systems thinking perspective. Systems thinking offers an alternative viable paradigm upon which the changing world of work and nature and work of business leaders could be built upon.

1.4. Studying the future business leader

As has already been shown, there is agreement in the literature that the current organisation is experiencing a period of unprecedented change. Both the substance and speed of change are fundamentally different from what has occurred in past centuries. This implies that "our thinking about the nature and work of leaders need to be revisited at a very fundamental level" (Verwey, 2003) and what is "needed is better and different leaders for a redefined and redefining world and organisation" (Veldsman, 2003).

Kotter (1999) suggests that in the emerging future, leadership will be demanded from more people to ensure organisational prosperity. He continues by stating that in a globalising world a "new leadership style" is called for, but the style is not the key issue – substance is. "It is about core behaviour on the job…" (Kotter, 1999:2). Traditional approaches to leadership no longer address the rapid social, cultural and organisational changes that are occurring globally and despite all that is known we are far from fully understanding leadership (Nahavand, 2003: 297).

The view of Sayles (1993) is representative of a great deal of the new thinking on leadership. He suggests that leadership affects managers at all levels, not simply those in the higher echelons of management. His emphasis is on the leader as the integrator of corporate systems. Gushurst (2004) reports that the integration of a new, younger generation of leaders into archetypal industries is producing new leadership methods. He is further of the opinion that leadership styles are always evolving with newer elements complementing more traditional ones.

2. PROBLEM STATEMENT

Given the perspectives of the future organisation, the world of work and its leadership sketched in the preceding review of literature, it would seem that at least the following questions can be identified which require further investigation through research:

1. What are the nature, design and structure of the future organisation and the world of work from a systems thinking perspective?
2. How can the nature and work of the future business leader be defined?
3. If the nature and work of the future business leader is fundamentally different from the current, what qualities (meta-competencies) of leadership will lead to success in this emerging business environment?

In trying to understand leadership and leadership competence, researchers through the years have focused on traits (Stogdill, 1948; Kirckpatrick & Locke, 1991); style (Blake & Mouton, 1964; Lickert, 1967); the contingency viewpoint as defined by Fiedler (1967); and transformational leadership (Bass and Avolio, 1994) to name merely a few. Despite the research available, numerous studies continue to demonstrate concern about building leadership within organisations (Ulrich et al., 1999:1). Khuarana (2003) adds to the debate by stating that the current system of CEO selection is designed to produce chief executives who are leaders in only a very limited sense. The CEO's of today are chosen only for their possession of business skills and experience relevant to a particular firm or industry, not for their ability to act as responsible fiduciaries on behalf of shareholders. It is clear that the quest for finding the meaning of effective leadership is therefore still a key challenge for business (Nahavand, 2003:3).

The above indicates a clear need to investigate the **future business organisation**, the **world of work**, the impact thereof on the **work and nature of the future business leader** and the building and validation of a **leadership meta-competence model** that will assist organisations in developing the future leadership competence within their respective fields of expertise.

This need for further investigation is taken to be true for business organisations generally. Within this general assumption, it can also be stated that the retail industry is undergoing particular challenges in adjusting to the new “organisational order” alluded to above.

Barner (2000:47) is of the opinion that leadership competencies should be identified within a specific business context. Leadership must be evaluated around the current and future needs of the organisation. It is therefore suggested that the meta-competence model for the future business leader is developed and validated within the South African retail industry. In this context “meta” must not been seen as a philosophical concept, but in its ordinary meaning of “encompassing” or “overarching”.

3. RESEARCH OBJECTIVES

Given the background and problem statement outlined above the aim of this research is to develop a conceptual model for defining leadership competencies that could be considered important for the future organisation, with specific reference to the South African retail environment. The articulation of these competencies should allow for the development of both assessment methodologies as well as learning interventions.

4. RESEARCH HYPOTHESIS

Given the research objectives as set out above, the following research hypothesis may be formulated:

- There is a difference between the definition of the current work and nature of business leaders and the future work and nature of business leaders within the South African retail industry.

5. THESIS STRUCTURE

In order to address the research objective and hypotheses, the following will be covered in this thesis. This chapter (Chapter 1) served as an introduction to the research. In Chapter 2 the emergence of the future world is discussed through an

overview of world history that lays the foundation for the future world; and the rationale of conducting research from a futuristic paradigm and the implications for this study.

The chapter then focuses on:

- An overview of models and theories that could assist in making sense of the future world;
- Factors driving futurism; and
- In conclusion an analysis of the key trends and patterns that will have an impact on the future world of work and its leadership.

This chapter forms the basis of a premise which asserts that due to the complexity and speed of changes in the world, the future world of work, as well as the nature of leadership and work of leaders, also needs to be revisited at a very fundamental level. Conceptually this can be illustrated as follows:

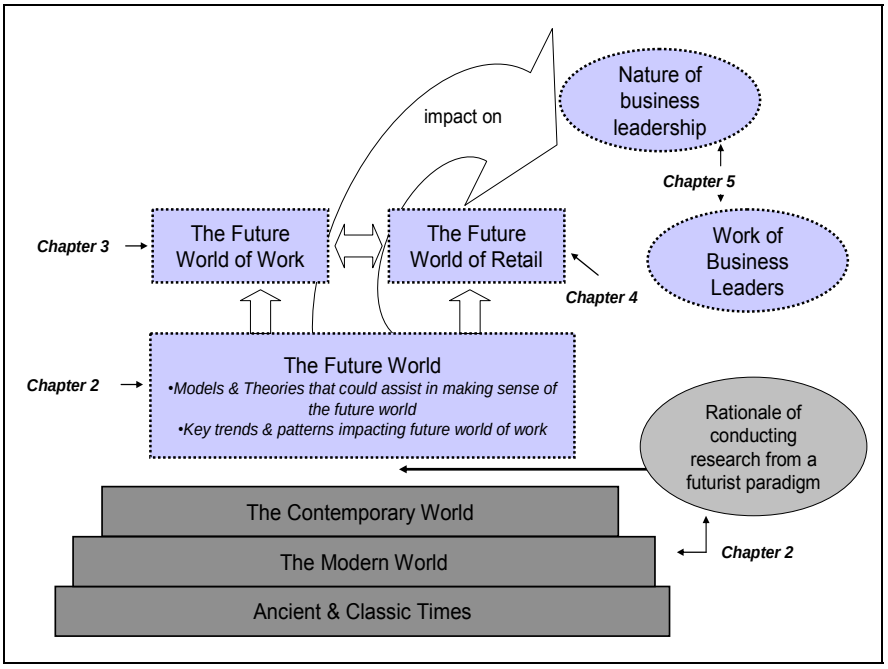


Figure 1: Conceptual overview: Chapter 2-5

As can be seen from the illustration above Chapter 3 will focus on the future world of work whereas Chapter 4 will investigate the future world of retail. These two

chapters will serve as foundation for Chapter 5 that will investigate both the work and nature of the future business leader.

The aim of Chapter 5 is to develop a leadership meta-competence model of the future business leader within the future world of work that will be validated within the following chapters (Chapters 6-8) for the future world of retail.

Chapter 6 will provide an overview of the research methodology, Chapter 7 will discuss the research results and Chapter 8 will conclude this study with final conclusions and recommendations.

CHAPTER 2: EMERGENCE OF THE FUTURE WORLD

1. INTRODUCTION

Various authors (Cairnes, 2004; Hite, 1999 & Kraut & Kormann, 1999) refer to the world as a fast-changing, complex and chaotic environment. Kiggundu (2002) is of the opinion that the world is changing due to the increasing speed of globalisation and presents a rigorous overview of the critical institutional factors that must be considered as well as the social, economic, and environmental problems that need to be addressed. These factors will be discussed in more detail in section 5 of this chapter.

The purpose of this chapter is to discuss the emergence of the future world and to explore the possibility of making "predictions" regarding the future. The future is an abstract concept through which human beings try to bring symbolic order to the present and meaning to past endeavours (Weingand 1995). The systematic study of the future is a recent phenomenon in the long history of thinking (Cleveland 2002:130), an exploration that is however not without risk, due to the inherent dilemma of "predicting" the future, while having to rely on current knowledge and wisdom (Hoyle, Bjork, Collier & Glass, 2004:84).

In this chapter the emergence of the future world is discussed by means of the following framework:

- A short overview of world history specifically from an organisation and leadership perspective;
- The rationale of conducting research from a futuristic paradigm and the implications for this study;
- An overview of models and theories that could assist in making sense of the future world; and
- Factors driving futurism.

This framework forms the basis of a premise which asserts that the future world of work (Chapter 3), as well as the nature of leadership and work of leaders (Chapter 5), also needs to be revisited at a very fundamental level.

2. WORLD HISTORY

Stearns (2000) divides human history into the following categories:

- Prehistoric Times;
- Ancient and Classics Periods, 3500 B.C.E. – 500 C.E.;
- The Postclassical Period, 500 – 1500;
- The Early Modern Period, 1500 – 1800;
- The Modern Period, 1789 – 1914;
- The World Wars and the Interwar Period, 1914-1945; and
- The Contemporary Period, 1945 – 2000.

The aim of this section is to provide a brief overview of the events from the early 1500's onward that shaped the world and have had an impact on the organisational environment and the role of leadership, as it is currently known. The discussion follows in Table 1 p11.

Table 1: Overview – Events shaping the world of work and leadership

Period	Key trends & patterns	Impact on the world of work and leadership
Early Modern Period, 1500 – 1800	According to Stearns (2000) three major changes were of special significance during this period. These changes included the development of new-style empires and large state systems that came to dominate global political and military affairs, the internal transformation of major societies, but especially the transformation of society in Western Europe and the emergence of networks of interaction that were global in their scope. The Early modern period in history marks the gradual change from an underdeveloped agricultural economy to an economy where trade, commerce and industry became increasingly important.	This commercialisation of economic life had significant effects on all of society, bringing an element of greater complexity to society. Leadership was characterised by power and the dominance of monarchies. It can be concluded that the influences of the West dominated the thinking on leadership further influenced by militaristic strategies and methods.
Modern Period, 1789 – 1914	Global relationships changed significantly during the 19th century and can be seen in the following wide-ranging areas: • An increase in Western power over the rest of the world in military, economic, and political spheres, and to some extent cultural spheres as well; • The domination of Europe by the French Revolution and related reform movements elsewhere, culminating in several revolutionary wars; • With the increase in technology European industrialisation progressed significantly, with a growing array of social and cultural, as well as economic, effects; • Growing international economic links triggered the first modern economic depression in 1856–57. Induced by several bank failures in the United States, the brief but sharp slump spread throughout Western Europe and had international ramifications, particularly among the industrial nations. These ramifications forced a growing number of areas to provide low-cost exports. Western companies also began to set up manufacturing branches in various parts of the world (Stearns, 2000).	These trends heightened the economic imbalance in international trade. Western nations dominated complex manufacturing, shipping and the great commercial companies, while many other areas traded at considerable disadvantages. The Industrial revolution of the modern era probably had the most fundamental impact on the world of work and leadership paving the way for mass production and consumption that improved living standards. This intensified the level of complexity experienced within society. It can also be concluded that the world of work and leadership was vastly influenced by politics, military strategies and a significant increase in technology leading to the industrialisation of the world.
World Wars & Interwar Period, 1914 –	Two world wars and a worldwide economic depression of great magnitude provided the global background and foundation for developments in the first half of the Twentieth Century. The globalisation of political, economic and cultural life intensified within the	Leadership and the world of work focused on efforts to resolve the problem of war, and the efforts to cope with the economic conditions of the global depression. It can

1945	context of the continuing relative domination by the West. From the beginning of World War I to the end of World War II, many different types of global relationships developed. Three important types of structures emerged: • Political organisations and relationships among states; • Multinational economic and business structures; and • Non-governmental organisations for cultural, religious, and humanitarian purposes. The major themes of global history were the continuing efforts to resolve the problem of war, first in terms of continuing the effort to find ways of eliminating war, and then in terms of limiting actual prospects of the major war that was clearly looming; and the efforts to cope with the economic conditions of the global depression (Stearns, 2000).	be argued that war influenced the way leadership styles and theories were perceived. What is clearly emerging is an increase in the levels of complexity the world of work encountered and subsequently a more complex world to manage and lead.
Contemporary Period, 1945 – 2000	The contemporary period is dominated by a considerable awareness of many different possibilities for the formation of "new world orders". Some of the key trends and patterns influencing the future world of work and leadership includes: • Major changes in the international structures of economic life. visible in the institutions regulating international finance and international trade and in the further development of non-governmental multinational economic institutions; • The worldwide nature of scientific enterprise and technological development was reflected in many fields, including the development and use of nuclear power, the exploration of space, world health and disease control, and in communication and information technologies; • An increasing awareness of changes in the physical environment caused by industrialisation and a plea to preserve resources being destroyed by the normal activities of modern economic life; • Massive population growth resulted from improved public health measures and successful attacks on many traditional diseases; and • The development of ethnic and national identities, and the evolution of identities based on particular ideologies Stearns, 2000).	In the Twentieth Century the globalisation of virtually all aspects of human life, inclusive of organisations and leadership continued to add to the speed and complexity of modern life, a trend that is most likely to continue into the future.

Through a review of Table 1 it can be concluded that globalisation, increased competition, science and technology and search for ethnic and national identities through the ages placed increasing demands on management and leadership. These increasing demands are also clearly increasing the level of complexity required to manage them. It is also clear that management and leadership thinking was mostly shaped by the thinking on military strategy and industrialisation (this thinking on leadership and management will be discussed in detail in Chapters 3 and 5).

Based on these conclusions the logical question clearly is “what will the future hold” and “will the historical and current thinking on management and leadership be sufficient in the future”?

Weingand (1995) argues that tomorrow needs to be explored, in order to more fully understand the demands of today and the critical decisions that must be made for the future. It is therefore of great importance that the world of today is understood and that the challenges of tomorrow are incorporated into the thinking of today. The next section will therefore focus on the methodologies and practices of conducting research from a futuristic paradigm, in order to develop a scientific base from which the question “what will the future hold”? could be answered.

In terms of this study, it is particularly important to note that in attempting to explore the leadership competencies required in the future it is necessary to also explore what the future world of work will look like. For this reason a framework for understanding and/ or specifying the future is required and therefore the following sections will also focus on philosophies and methodologies available to conduct research from a futuristic paradigm.

3. CONDUCTING RESEARCH FROM A FUTURISTIC PARADIGM

The path between the past and the future has historically been perceived as a linear progression. In many cultures, the possibility of human intervention was not acknowledged and the path was viewed as cyclical, recurrent, and pre-destined

(Masini, 1978:17). Today, it is understood that the future is determined by a combination of factors, not the least of which is human choice (Weingand, 1995). This section will focus on reaching a conclusion on what "future research" encompasses.

Weingand (1995) argues that futuristic research does not fall into neat categories and the concept of future research is further complicated by the following statements:

- There are no specific qualifications needed to be a futures researcher. A futurist is simply a person who either identifies with being a futurist or is so identified by others;
- Futures research is not limited by the use of certain methods;
- Although many people are concerned with, think about or write about the future, only a portion of them call themselves futurists;
- Futures research is generally not regarded as a field because its practitioners do not share a common academic background; indeed, it might be termed a multi-discipline; and
- Futures research is highly fragmented; it can, however, assist in counteracting intellectual fragmentation across other fields by focusing on broad, integrative work.

Futurists argue that it is not possible to have knowledge about the future, but merely to have knowledge about factors shaping the future (Roux & Du Toit, 2003:10). The future does not exist; it is merely an appearance or phenomenon. The "future" is a product of explorative images, ideals or visions that can be manipulated by human intervention (Roux & Du Toit, 2003:11).

Based on a perceived need for a systematic approach to futurology Roux and Du Toit (2003:12) established the following principles for studying the future:

- The only space in time on which humans can have an impact is the future;
- There is not one future, but many possible futures;
- The future cannot be predicted, only understood;
- The future is not predetermined nor ordained; and

- The future is influenced by human actions.

Clearly the "future" cannot be predicted – the future is an appearance or phenomenon. Futurists merely try to understand and explain the factors that influence the future, in order to allow human intervention and to shape the future. The case is also made that even though futurology is a new way of thinking, it must be done in a systematic and scientific way. The futurist therefore needs to adhere to certain principles and apply standardised methodologies. The next section will explore some of the standardised methodologies available to the futurist.

4. FUTURES RESEARCH METHODOLOGIES

In futures research, quantitative or qualitative methods may be used to produce normative or explorative forecasts. Some of these methods include statistical forecasting (Godet 1994; Hill, 1978 and Tydeman, 1987), simulations (McClean, 1978), Delphi method (Weingand, 1995) and scenario planning (Shwartz, 1991; Crainer & Dearlove 2001; and Ilbury & Sunter 2001).

As stated in Chapter 1, Roux and Du Toit (2003:30) emphasise the importance of developing a "systems thinking" capability as it allows the researcher to make sense of the future because:

- It allows for cognitive ability of perceiving and understanding the entire composite of what is producing a particular state of affairs/ environment;
- It means thinking about the purpose/ function of the particular system or sub-system;
- It entails thinking in terms of interrelations between systems and subsystems;
- It encompasses thinking in terms of processes; and
- It allows thinking in terms of how the integrity of a particular system is sustained (Roux & Du Toit, 2003:30-31).

Therefore this section will only focus on general systems theory and various other theories emanating from general systems theory. It will be used as a base for

making sense of the future world and the future world of work. Systems science developed out of engineering, mathematics, computer science, biology, economics and the management sciences in order to understand and gain control of natural phenomena (Levin & Fitzgeald, 1992:1). In the second half of the twentieth century two conceptual systems, Cybernetics and General System Theory attracted adherents among scientists. These theories described living beings as systems similar to non-living natural systems and human artefacts. In the course of time, the two became integrated into a single theory known as Cybernetics in Europe and General System Theory in the United States (Miller & Miller, 1992:9).

The rest of the section will now provide an overview of general systems theory and will be discussed according to the following framework:

- The classification of systems;
- Components of systems
- Characteristics of systems;
- System dynamics; and
- System boundaries.

Types of systems

Systems (Ackoff, 1971; Carter; Martin, Mayblin & Munday, 1984; Checkland, 1981 and Waring, 1996) can broadly be classified as:

- Natural systems (e.g. biological systems, weather patterns, disease);
- Designed abstract systems (e.g. computer programming languages, simulatory models);
- Designed technical systems (e.g. computer system, process plant); or
- Human activity systems or social systems (e.g. corporations, a committee, a church).

For purposes of this study it can therefore be argued that organisations and the future world of work can be classified as a social system.

Components of systems

The following classification on the components of systems is based on the work of Berien (1968), Van Gigch (1974), Von Bertalanffy (1968) and Weinberg (1975).

Table 2: Components of systems

Elements	Conversion process	The environment
Elements are the components of each system. The elements can, in turn, be systems in their own right, known as subsystems.	Systems are endowed with conversion processes by which elements in the system change their constitution. The conversion process changes input elements into output elements (see figure 2 below). The inputs into a system could be seen as the energy or the information introduced into it. The outputs of a system are those energies, information or products that the components discharge from the system into the environment	Open systems interact with other systems within their environment.

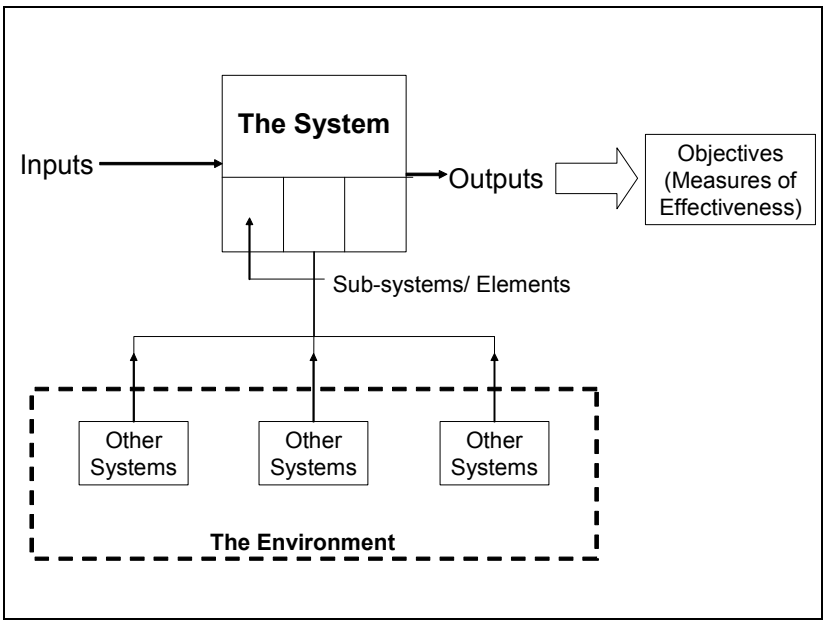


Figure 2: Schematic diagram of a system and its environment

This diagram demonstrates the conversion process within a system by which elements in the system change their structure.

Characteristics of systems

Fisher (1977:86-90), Katz & Kahn (1978:23-30) and Kim (1991:3), identified the following as the characteristics of open systems:

- Systems have purpose;
- All parts must be present for a system to carry out its purpose optimally;

- The order in which the parts are arranged affects the performance of the system;
- Systems have an openness or interaction with the external environment. They take in information in the form of feedback from the environment, attempting to maintain stability through feedback;
- Systems have an element of holism, meaning that the behaviour of the system is greater than the sum of behaviours of its parts;
- Hierarchy in systems are based on levels of complexity. Systems organise complexity in terms of both function and structure;
- Systems are self-regulation implying some process of monitoring performance, feedback and adjustment;
- Energy is absorbed from the external environment;
- Outputs are delivered to the external environment. The principle of equifinality, exists within a system meaning that the same outputs can be achieved in multiple manners. More energy needs to be absorbed than is required to deliver the outputs (principle of negative entropy);
- Systems attempt to achieve dynamic homeostasis through expansion and growth;
- Systems tend to differentiate and expand through specialised functions; and
- The increased differentiation is dealt with by means of coordination and integration.

System dynamics

Although systems dynamics have been applied to chemical, biological and physical systems, historically their major application has been to problems in management, economics, urban studies and resource allocations. System dynamics encompasses distinct substantive methodologies and approaches (Levine, Van Sell & Rubin, 1992:145-146).

A major assumption of system dynamics is that behaviour is associated with the purpose or goal of the system (Levine et al., 1992:147). The purpose or goal of a system also implies the existence of feedback. Forrester (1961, 1968) argues that feedback occurs in situations where goals or the purpose cannot be reached or

are in conflict. This assumes that a gap exists between the goals/ purpose and the current state of the system. Levine et al. (1992:147-148) explain that when this gap between the state and the ideal state occurs action occurs to eliminate the discrepancy and the system returns to the new state. Thus feedback has occurred.

Haines (2000:15-21) provides a framework for understanding systems dynamics, which may also be held true for social systems, and therefore also for organisations:

- A system must be examined as a whole, not just the sum of parts;
- Social systems are living systems, interacting with their environment, having to fit into the environment, scan their environment and then adapt to it;
- In systems relatively open boundaries exist, making it somewhat vague in terms of knowing and fully understanding their limits;
- An open system can viewed as a transformational model. It is in a dynamic relationship with its environment, receives various inputs, transforms these inputs in some way, and exports outputs;
- The concept of feedback on effectiveness is important in understanding how a system maintains a steady state or improves;
- Social organisations can accomplish their objectives with diverse inputs and varying internal activities.
- A system is composed of interrelated parts (sub-systems or components) that are in some relationship with each other;
- Closed systems eventually must attain a state of equilibrium with maximum entropy, however open systems may attain a state where the system remains in dynamic equilibrium; and
- Closed systems move toward entropy and disorganisation. In contrast, open systems appear to move in the direction of greater differentiation, elaboration, detail and a higher level of organisational sophistication.

System boundaries

Berien (1968:32) defines a system boundary as the region separating one system from another and whose function is to filter or select inputs and outputs. It can be distinguished by some difference in the relationships existing among the

components within the boundary, compared to relationships which occur across the boundary. The purpose of the boundary is to (1) act as a barrier to flows of input in and out of the system, (2) act as a selective filter that protects the system (Miller & Miller, 1992:26).Some boundaries are separated by an interface area between systems that merely transports inputs or outputs from one boundary to another (Berien, 1968:32).

In this section, systems were explored further in terms of types of systems, components of systems, their characteristics and dynamics as well as the boundaries of systems. McClelland (1965) warns that despite all general systems theory promises, it should be kept in mind that the General Systems Approach is neither a formula nor a doctrine, but a cluster of strategies of inquiry; not a theory but an organised space within which many theories may be developed and related. A case has been made (that is of significant importance for this study) that systems theory is a useful theory to make sense of the world of work and its leadership, because it allows for:

- The study of the abstract organisation of phenomena, like the future;
- The future to be examined as a whole, not just the sum of parts;
- Thinking in terms of interrelations between systems and subsystems; and
- The future to be viewed as a dynamic relationship constantly interacting with the environment, receiving various inputs (e.g. human intervention), transforming these inputs in some way, and exports outputs.

The next section is devoted to the concept of social systems and the related theories that have evolved from the General Systems Approach.

4.1. Social systems and the related theories

This section will discuss social system, contingency, chaos, complexity theories and conclude with the Cynefin framework, which is in essence a sense-making framework.

4.1.1. Social systems theories

From the above it can be seen that the endeavour of developing a general theory of systems emerged from the natural sciences, both as a way to look for larger, cross-disciplinary principles and to search for concepts that might apply to non-physical areas of study. One of these areas was the concept of social systems or as Checkland (1981:14) labelled it: Human Activity Systems. He also referred to it as soft systems thinking. “Soft systems thinking is oriented to learning by using systems models to explore problematic situations. The models are not considered to be of the world, amounting to intellectual constructs which help to surface important issues arising from problem situations that may be debated, leading to accommodation between ideas and the maintenance of relationships” (Flood & Ulrich,1991:16).

Bredemeier and Stephenson (1962:34-36) argue that social groups do not necessary imply a social system. A social system is an abstract concept whereas a social group is a concrete reality. The system remains the same even though the people acting within the system may change. People may also interact in a system without forming a social group. Bredemeier and Stephenson (1962:58-59) further argue that differentiation is accomplished by means of a social system composed of social statuses. Status links people to different systems and differentiate the person’s behaviour within each system.

Luhmann, Bednarz and Baecker’s theory (1995) on social systems also implies that they are not made up of "people", as such. Their theory does not preclude the concept of individual persons as is common in everyday thought, they are also clear that the actions or behaviours of systems cannot be attributed to the actions of individual persons or groups of persons. Due to these arguments Luhmann et al. (1995) distinguish between:

- living systems based upon cellular reproduction;
- psychic systems based upon consciousness ; and
- social systems based upon communication.

Ackoff and Emery (1972:218) characterise human activity or social systems as systems where its members are purposeful individuals who intentionally and collectively formulate objectives. These systems are social organisations in which the state of the part can be determined only by reference to the state of the system. This implies that the effect of change in one part or another is mediated by changes in the state of the whole.

Jantsch (1980) views human activity systems from an evolutionary perspective suggesting that systems adapt as a response to something that has evolved outside of the system. He reflects on the emergence of the self-organising paradigm arguing that evolution is an integral part of self-organising. He argues that true self-organising incorporates self-transcendence, the creative reaching out of a system beyond its boundaries.

Laszlo (1974:28) argues that social systems are not observable, only selected aspects of them are empirically available and these are given in the form of a wealth of complex data relating to individuals, groups, their psychologies, economics and ecologies, patterns of power and authority, social status and so on. In themselves, the data does not generate models of social systems but serve only to validate theoretical constructs.

Luhmann (1986:183) introduced the concept of autopoietic social systems, which are simultaneously open (cognitively) and closed (normatively). Johannessen (1998:362) states that the cognitive openness is a form of awareness or knowledge linked to the environment of the system, which maintains organisational learning. This links to the argument put forward by Senge (1990) that the new information society requires learning organisations that are characterised by continual development and improvement.

Within the field of systems theory, there is a difference in opinion about the extent to which systems are actually "real" versus "conceptual". Theorists such as Bailey (1994), following Miller (1978), argue for a "concrete" basis for social systems, implying that a social system is a tangible reality. Researchers, such as Checkland (1999:118) see social systems only as mental maps or images. The importance of

the question lies in whether specific systems or types of systems actually exist, or are in fact more conceptual by nature, or whether all collectivities that can be made to fit certain criteria have equal validity as systems (Metcalf, 1999). The focus of this study is not to resolve this debate, but merely to comment on the different approaches.

Recent popular interest in social systems revolves around two characteristics. One is that of complexity and the way it is applied to issues of social systems. The theme here is that there is some prevailing sense of order underlying all reality, and to which all structure and history seem to gravitate. The other is that of unintended consequences, due to the interactions and reactions of systems at levels outside of our understanding or awareness (Metcalf, 1999).

It was argued above that organisations could be classified as a social system:

- Where its members are purposeful individuals who intentionally and collectively formulate objectives;
- Where the effect of change in one part or another of the system is mediated by changes in the state of the whole;
- That adapts as a response to something that has evolved outside of the system. This implies the emergence of a self-organising or evolutionary paradigm; and
- Which are simultaneously open (cognitively) and closed (normatively). The cognitive openness is a form of awareness or knowledge linked to the environment of the system, which maintains organisational learning.

Systems Theory, as originally envisioned, sought larger principles of order and coherence that might then provide the basis for applications beyond the physical sciences. But with its roots in science, it never seemed to escape the fundamental assumptions about the world it chose to describe - only to describe it at a different level or from a different perspective (Metcalf 1999). This criticism against Social System Theory leads to various other theories trying to build a bridge from General Systems Theory towards a grand theory for social systems. These theories, are discussed in the following sections.

4.1.2. Contingency Theory

Scott, Mitchell and Birnbarum (1981:57) point out that Contingency Theory was introduced as an extension to the Systems Theory to make the model more useful on an everyday, practical management level. On the most abstract level the Contingency Approach suggests that the effect of one variable on another depends upon some third variable.

In essence, Contingency Theory is a rejection of the "one best way for all" approach to structuring and running organisations. Instead, the substituted view holds that the structure (and therefore the performance) of an organisation is dependent ("contingent") on the situational variables it faces - the main ones being environment, technology and size (Burnes, 1989).

Makropoulus (1998:23) as quoted in Beyes (2003) argued that “acting” within organisations are based on the selection of a variable and can be influenced by unforeseen events and developments. For the purposes of this study it is important to note that it therefore can be argued that the future of the organisation is contingent and the slightest change can influence it dramatically, making it almost impossible to predict the final outcome or performance of the system.

4.1.3. Chaos Theory

In the last half of the Twentieth Century, theorists in various scientific disciplines established that the type of linear analysis used in classic applied mathematics presumes an orderly periodicity that rarely occurs in nature. It was determined that disorder had been ignored and therefore the quest was on to construct deterministic, non-linear dynamic models that explicate irregular, unpredictable behaviour (Gleick, 1988; Tsonis, 1992).

The rest of this section (Table 3) will provide a brief overview of assumptions relevant to chaos theory as the assumptions will be relevant for this study.

Table 3: Basic assumptions of Chaos Theory

Basic Assumption	Descriptor	Implications for this study
Non-linear	Chaos is an evolutionary system theory. It sees a system as continuously transforming itself to a higher level of complexity, making changes that are irreversible and thus, evolutionary (Bechtold, 1997). Chaos Theory states that the cause and effect relationship are not so easy to predict, due to the fact that the slightest change can influence it dramatically, making it almost impossible to predict the final outcome of any process (Murphy, 1996:97).	This indicates the emergence of a self-organising or evolutionary paradigm for the future world of work continuously leading to higher levels of complexity that adds to demands placed on leadership. This also links to contingency theory as discussed in section 2.4. where it was established that the future world is contingent and the slightest change can influence it dramatically, making it almost impossible to predict the final outcome or performance of the system.
Bifurcation	The inclination towards destabilising in chaotic systems can give rise to bifurcation. Bifurcation points can cause sudden changes in direction, character, or structure and permanently redefine a system in new and unexpected ways (Bechtold, 1997). A bifurcation point can be predicted, but not the end results (Murphy, 1996:97).	This defined inclination that gives raise to bifurcation indicates the need for flexible organisational structures and the need for a change resilience that will allow the organisation to quickly re-direct its energy after sudden changes in direction, character, or structure.
Feedback	Feedback also modulates the system, either to maintain the system stability (negative feedback) or to amplify deviations and anomalies, destabilise the existing state, and introduce new patterns into the system (positive feedback) (Bechtold, 1997).	Feedback in the future world of work will exponential become more important as this will be become central to the organisation's ability to stabilise and to introduce new patterns into the system.

Basic Assumption	Descriptor	Implications for this study
Strange attractors	Due to the transformation process of systems a level of instability can be reached (Bechtold, 1997). This does not imply a lack of structure or coherence; even non-linear systems have deep underlying structures that direct the system – known as strange attractors (Frederick 1998).	This more implies that leadership within the future world of work would need to look at organisations from a systems perspective and understand that systems can reach a level of instability. Leadership would be required to identify the underlying coherence and direct the organisation through a time of change and transformation.
Self organising and self renewal	Chaos Theory views all dynamic systems as self-organising in how they order and structure themselves and in how they grow and change. Self-organisation means not only emergent order and self-generation but also co-evolution with the greater environment. Chaos Theory assumes that a system creates its own order and natural growth by integrating transformations into its identity and thus ensuring continual growth at a higher level of being (Lewis, 1994:16; Bechtold, 1997). Bechtold, (1997) argues that a system improves itself, creates its own future, and continuously adapts to its environment based on its intelligence and information. For this, the system not only needs to tap into its more stable parts but also into those at the "edge of chaos" that are chaotic or even dissipative. Through the freedom of operating with an open flow of information from the system's "edge," it stays connected to its simultaneously evolving environment and enhances its ability to handle environmental changes. Interrelationships among the elements co-evolve with the system, ensuring their compatibility with the emerging order.	This implies the future world of work will creates its own order and natural growth by integrating transformations into its identity and thus ensuring continual growth at a higher level of being. As this improvement takes place the organisation creates its own future, and continuously adapts to its environment based on its intelligence and information. This emphasises the importance of information sourcing, analysis and integration back into the organisation to ensure the compatibility with the emerging order, essentially ensuring the survival of the organisation.

Whereas chaos was previously perceived as a disruption to the change process and something to be avoided, physical and social scientists recently have come to understand that the chaotic phase of the change process is a necessary phase of purposeful disorder through which a system or organisation must evolve if it is to metamorphose into new order (Sullivan, 1999:408). It can therefore be concluded that because a system or organisation operates in an unstable combination of randomness and order, it needs to continuously change and evolve.

4.1.4. Complexity Theory

Complexity is a hallmark of modern societies - chaotic, rich connectivity and diversity of participants and resources are common (Espejo, 2004). Complexity Theory is the study of emergent order in what are otherwise very disorderly systems (McElroy, 2000:195), or also viewed as a further elaboration on Chaos Theory, where complexity is defined as that zone between stability and predictability on one hand, and chaos and unpredictability on the other (Lewis, 1994:16). The complexity of a system depends on the complexity of the elementary components, the richness of their connectivity and their functional differentiation (Espejo, 2004).

In a sense, complex systems innovate by producing spontaneous, systemic bouts of novelty from which new patterns of behaviour emerge. Patterns, which enhance a system's ability to adapt successfully to its environment, are stabilised and repeated; those that do not adapt are rejected in favour of radically new patterns almost as if a cosmic game of trial-and-error were being played. Complexity is therefore, in part, the study of pervasive innovation in the universe (McElroy, 2000:196).

As a system is open to energy and other resources, it is simultaneously operationally closed that is, the connectivity of its components produces a closed network, which is and can be differentiated from its background, medium or environment. The stronger the environmental stretching (demands from the environment in which they realise their relations), the more this closed network of

relations will have to develop inner response capacity to maintain its unity; the system will need further differentiation and thus will need to become more complex (Espejo, 2004).

Complexity Theory can also be conceptualised as the modelling via (mathematical) computational experiments of how events self-organise in order to produce complex adaptive systems (which will be discussed in the next section).

4.1.5. Complex Adaptive Systems Theory

Complex Adaptive System Theory (CAS) was first introduced in the early 1980's (McElroy, 2000:199). It was recognised by Holland (1995) that human organisations are complex adaptive systems – this implies groups of independent autonomous agents, all of whom share certain goals and operate in accordance with individually and collectively held rules or knowledge.

Holland (1995) further argues that the rules (declarative or procedural in nature), however, are not necessarily in harmony with one another, and the tension between them over time gives rise to the emergence of new ideas to replace old ones. Every new idea (or rule) that replaces an old one can be thought of as an innovation. Innovations that lead to changes in knowledge and practice can be thought of as learning events. These learning events or knowledge are employed by complex adaptive systems in pursuit of perpetually adaptive behaviour to allow the system to fit itself to its environment.

The New England Complex Systems Institute (www.necsi.org) developed a CAS model as illustrated in Figure 3 on the following page.

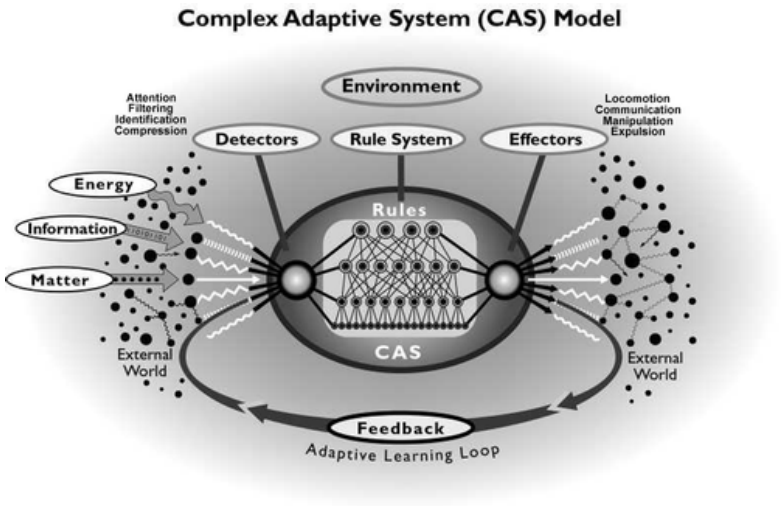


Figure 3: Complex Adaptive Systems Model

From the figure it can be seen that:

- The system encounters incoming stimuli from its environment (information, energy or matter),
- The system fashions its responses by invoking pertinent knowledge contained in its rule sets;
- Actions then taken, if any, produce effects inside the system itself and/or externally, the results of which are fed back into the system for immediate and future reference; and
- Rules, or knowledge, are refreshed in the process.

Lewin (1993) asserts that complex adaptive systems (CAS) have a structure and solid order across such aspects as Boolean networks, ecosystems and human societies and identifies the following characteristics implying that CAS can be applied to organisations as well:

- CAS have the ability to process information. The greater a system's ability to process increased amounts of information, turning it into knowledge, the closer to the edge of chaos the system can evolve. This evolution to higher effectiveness occurs because the edge of chaos is the most active and creative context possible for all organisms and their interactions; and
- In CAS there are states similar to what mathematicians call attractors. These states are more likely to become true (that is, come into existence as the

system evolves) than are others. The attractors limit the number of states that actually occur in relation to the number that are mathematically possible. These attractors are the order-for-free archetypal architectures that nature uses for all emerging higher forms.

Applying Complexity Theory to organisations it can be argued that organisations can be seen as complex, adaptive social systems, operating in a zone between stability and predictability, on one hand, and chaos and unpredictability, on the other.

The complexity of an organisation depends on the complexity of the elementary components, the richness of their connectivity and their functional differentiation. Organisations innovate by producing spontaneous, systemic bouts of novelty from which new patterns of behaviour emerge, which enhance the ability to adapt successfully to the environment or to evolve to higher effectiveness.

Another sense-making framework (based on the principles of complexity and chaos) originated in the practice of knowledge management as a means of distinguishing between formal and informal communities and as a means of communicating about the interaction of both with structured processes and uncertain conditions (Kurtz & Snowden, 2003: 467). This framework will be discussed in the following section.

4.1.6. The Cynefin framework

Kurt and Snowden (2003) developed the Cynefin framework to assist people in making sense of “complexities made visible by relaxation of these assumptions”. These assumptions, discussed below, are generally held true and applicable in all situations (ibid:463):

- **Order** – There is an underlying relationship between cause and effect in human interactions and markets. In consequence it is possible to produce prescriptive and predictive models and design interventions that allow us to achieve goals;

- **Rational choice** – Faced with a choice between one or more alternatives, humans will make a rationale choice based only on minimising pain and the maximisation of pleasure; and
- **Intentional capability** – The acquisition of capability indicates an intention to use that capability.

Kurtz and Snowden (2003:468) consider Cynefin a sense-making framework, which implies that its value is not so much in logical arguments or empirical verifications that in its effect on the sense-making and decision-making capabilities of those who use it. The authors further argue that humans are not limited to act in accordance with predetermined rules and are capable of changing a system from complexity to order. Intentional capability plays a large role in human patterns of complexity.

As illustrated in Figure 4 on the following page, the Cynefin framework has five domains, four of which are named and a fifth central area, which is the domain of disorder (Ibid.:468-470):

- **Ordered domain: Known cause and effects**. Here cause and effect relationships are generally linear, empirical in nature, and not open to dispute. Repeatability allows for predictive models to be created and the objectivity is such that any reasonable person would accept the constraints of best practice.

- **Ordered domain: Knowable cause and effects**. While stable cause and effect relationships exist in this domain, they may not be fully known, or they may be known by a limited group of people. In general, relationships are separated over time and space in chains that are difficult to fully understand. Everything in this domain is capable of movement into the known domain. This is the domain of Systems Thinking.

- **Un-ordered domain: Complex relationships**. This is the domain of Complexity Theory, which studies how patterns emerge through the interaction of many agents. There are cause-and-effect relationships between the agents, but the number of agents and the number of relationships defy categorisation

or analytic techniques. Emergent patterns can be perceived but nor predicted – this phenomenon is called retrospective coherence.

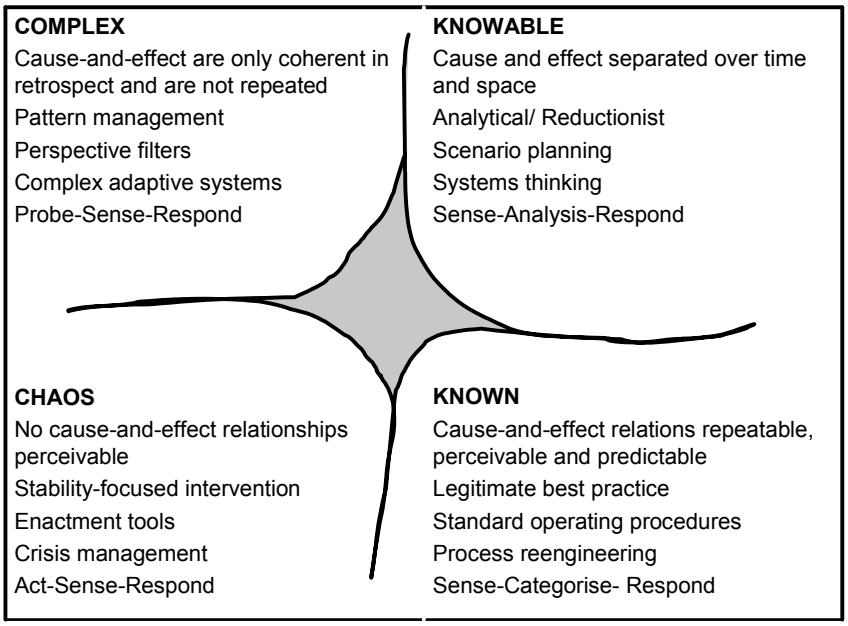


Figure 4: Cynefin domains

- **Un-ordered domain: Chaos**. In this domain there are no visible relationships between cause and effect. The system is turbulent; there is no response time to investigate change. Applying best practice is probably what precipitated chaos in the first place; there is nothing to analyse and waiting for patterns to emerge is a waste of time. This chaotic domain is in a very real sense uncanny, in that there is a potential for order but very few can see it.

  This also links back to the discussion on the basic assumptions of chaos theory, where an understanding was created that the chaotic phase of the change process is a necessary phase of purposeful disorder through which a system of organisation must evolve if it is to metamorphose into new order.

- **The domain of disorder**. The central domain of disorder is too critical to understanding conflict among decision makers looking at the same situation from different points of view. As a result individuals compete to interpret the central space on the basis of their own preferences.

Boundaries are probably the most important elements in sense-making, because they represent differences among or transitions between the patterns we create in the world that is being perceived (ibid.: 474). When using the Cynefin framework, the way people think about moving between the domains is as important as the way they think about the domain they are in. A move across boundaries requires a shift to a different model of understanding, and interpretation as well as leadership style (ibid.: 475).

The uniqueness of this approach lies in the recognition of the value and interaction of order and un-order. As such, it allows for critical distinction between the effectiveness of human groups and the efficiency of machines, processes or the application of rules of engagement (ibid.: 482). In summary the Cynefin framework offers a guide to view organisations from a complexity perspective. It is a sense-making framework utilising multi-ontological states which explain different organisation states and structures, which inherently implies different management styles for the different contextual domains.

4.2. Conclusion

From the previous arguments in this Chapter it is clear that:

- History has shaped the nature and dynamics of commercial organisations and leadership (section 2);
- History is indicating that there is an exponential growth in levels of complexity (section 2) implying that a methodology used to make sense of the future world need to cater for complexity;
- It is unlikely that organisations and leadership will survive their current form in future (Chapter 1, section 1.3.); and
- Therefore we need to systematically explore the future world of work and leadership in order to understand the implications for current and future organisations and leaders.

It was argued in the beginning of section 4 that the best way to manage growing complexities is through developing a systems thinking capability. In this chapter

various theories building on the concept of Systems Theory were explored. From the above theoretical overview the following picture starts to emerge:

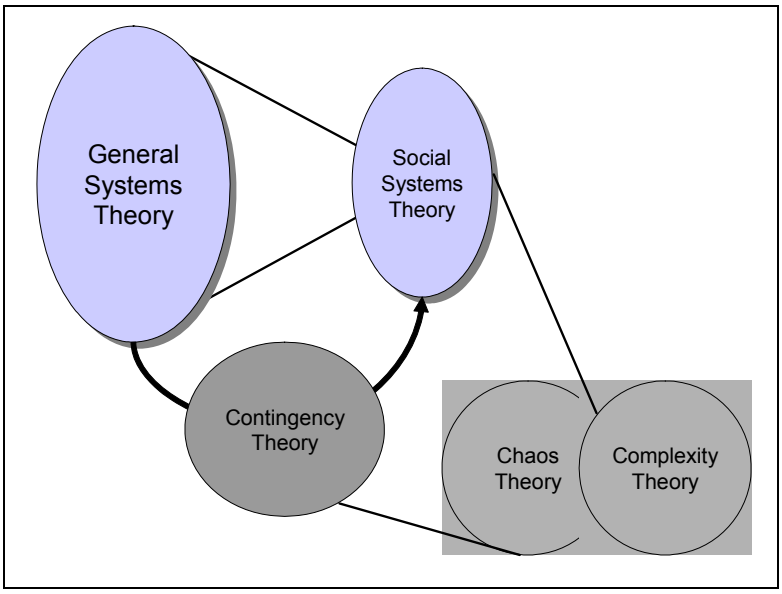


Figure 5: An integrated view of the development of Systems Theory

This diagram suggests that the endeavour of developing a general theory of systems emerged from the natural sciences searching for concepts that might apply to the non-physical areas of natural science. Out of this emerged the concept of social systems theories or also known as soft system thinking.

In order to apply the concept of Systems Theory to specifically the management sciences contingency theories emerged as a bridge, building in the foundations of General Systems Theory and Social Systems Theory. In Social Systems Theory there was also evidence of the shortcomings of the theory and the concepts of complexity and chaos were introduced. In essence, these approaches recognise that something which has provided value is not rendered valueless by new thinking, but is bounded by new insight and legitimised within boundaries and therefore made more effective.

Applying the various theories discussed above (social systems, contingency, complexity, chaos and cynefin framework) the following framework was developed

in order to view organisations and the future world of work as a complex adaptive social system as illustrated in Figure 6 on p35.

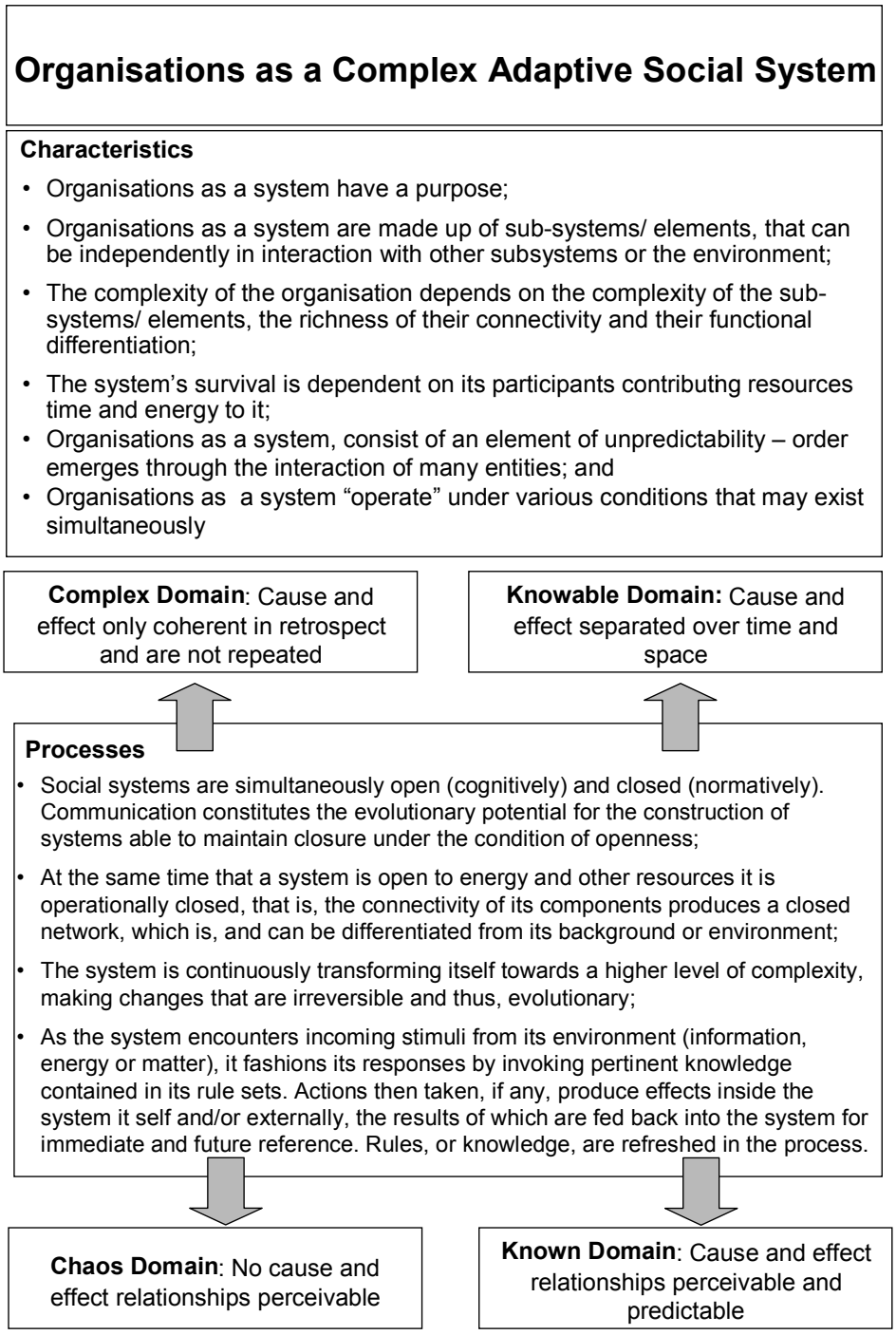


Figure 6: Organisations as complex adaptive social systems

Even though this basic analysis will be explored further in the following chapters by applying the framework (Figure 6) to the future world of work, it is important to highlight the impact of this framework on business leadership:

- Applying contextual complexity to organisations implies that organisational structures and leadership styles are the outcomes of a certain context;
- Different organisational structures apply to the different contextual domains, chaos, complexity, known and knowable;
- Organisations as a system consist of an element of unpredictability, implying the certainties of the traditional management/ leadership approach does not hold true anymore. Solutions that worked previously are not necessarily transferable to the current organisational challenge;
- Organisations as a system have the ability to reorganise themselves, which make it possible for these systems to renew themselves. Leaders have to be aware of this and understand when it is necessary to change and adapt their own behaviour;
- Organisations have to be flexible and subsystems need to work together to realise organisational goals. It is the responsibility of leadership to create these flexible organisations ;
- The role of leaders is to co-ordinate this complex system implying that they need a systems ability, able to:
    - Perceive and understand the system (organisation) as a whole with a which is “producing” a particular state within which the organisation and its sub-systems functions - realising that a change in one area of the system will have an immediate effect on the rest of the system;
    - Think about the purpose (or function, role) that a particular system and/or subsystem fulfils
    - Making sense of what is currently happening; by thinking in terms of process which refers to making sense of how results are “produced” within the system and its sub-systems; and
    - Think in terms of the governance which means how the integrity of a particular system is maintained to ensure the survival of the system.

The previous sections explored the different models and theories available for making sense of the future. A logical question now would be: “What are those factors, from a system point of view, that drives futurism and that will impact on the future world of work (Chapter 3) and the future business leader (Chapter 5)?” The

rest of the chapter will therefore focus on factors driving futurism and will conclude with an analysis of the key areas which may very likely impact the future world of work and the work and nature of the future business leader.

5. FACTORS DRIVING FUTURISM

Literature on Business Strategy (Hussey, 2000; Pearce & Robinson, 2000; Phatak, 1997) suggests that organisations use a systemic analysis of the external environment to anticipate what impact the external environment and the future might have on the organisation. This systemic analysis is usually conducted from a political, economical, social, technological and environmental perspective (Pearce & Robinson, 2000:71-77), while Phatak (1997:6) adds a legal dimension.

Graphically this approach can be illustrated as follows:

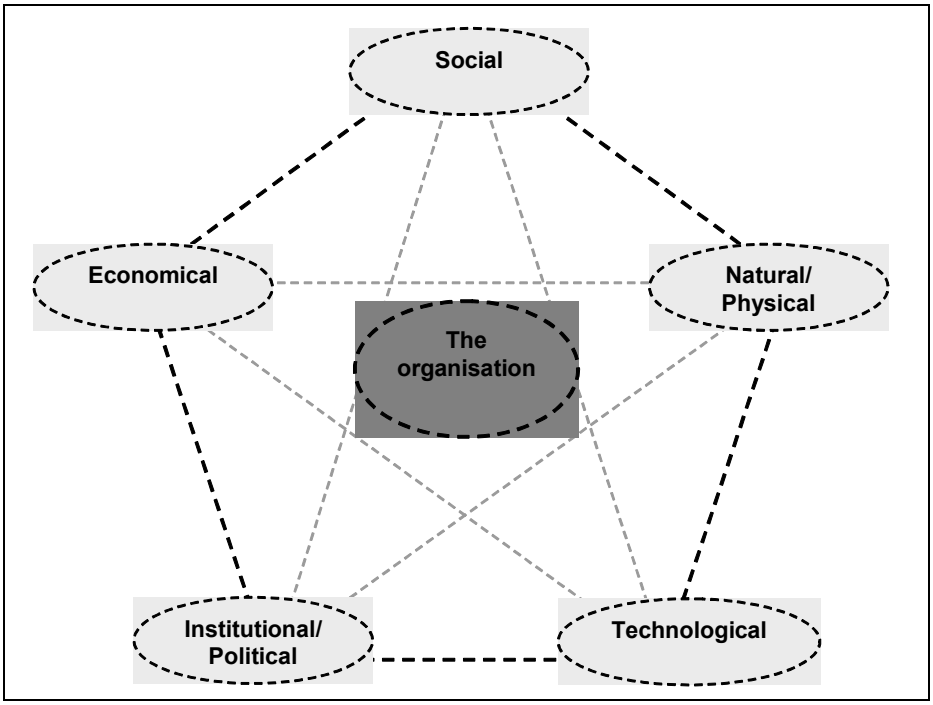


Figure 7: Systemic view - external influences on the organisation

Even though the five dimensions are discussed separately none of these should be viewed in isolation (as indicated by the lines connecting the different domains in Figure 7) but rather as an integrated system where changes in one dimension will

have an impact on the other dimensions as clearly demonstrated by systems theory discussed in section 4.

The rest of this section is devoted to the emergence of future world trends, patterns and scenarios and will be discussed from the perspective of the above model.

5.1. The social environment

The social environment is firstly discussed from a social perspective and secondly from a demographics perspective. The emerging thinking on the social environment is very much influenced by seriously deteriorating social conditions in most of the industrialised world caused by the emergence of the new Information Society. Fukuyama (1990:3-5) identifies the following declines that started to emerge roughly in the mid 1960's:

- The rise of crime and social disorder made inner city areas of the wealthiest societies on earth almost uninhabitable;
- Declining kinship as a social institution accelerated sharply in the last half of the Twentieth Century. This is evident in the decline of marriages; drop in fertility and the soaring of divorce;
- Trust and confidence in institutions went into a deep, forty-year decline; and
- The technological change in the market place caused similar disruption in the world of social relationships

Scenarios about the social future world, in response to these deteriorating social conditions emphasise values, religion and spirituality (Harman and Hurley, 1996). A growth in the diversity of the religious community is also emerging. According to Brown (n.d.) the growing religious diversity will continue to impact communities, corporations and culture. A new trend is the interest in spirituality and what Brown (n.d.) defines as people's quest for meaning - the web that holds one's life together and connects it to something larger.

From a demographic point of view Green, Haldenwang, Van Vuuren and Du Toit (2003:3) identify the following major trends that will affect the future:

- A decline in the world population growth rate, the growing importance of migration flows and population ageing in more developed countries;
- Rising crime rates in most parts of the world, representing a pathology that could stunt the development of society; and
- A disproportionally high incidence of disease and malnutrition.

This implies a growing conscience that the world can not continue on the same trend if it does not want to face disaster. Business and organisations need to take cognisance of this and prepare for:

- Social responsibility towards the broader community;
- A different kind of consumer influenced by changing demographics;
- Employees searching for meaning and purpose in their work lives; and
- Combating crime and providing products and services that will satisfy growing needs for security.

5.2. The political/ institutional environment

On 11 September 2001 a terrorist attack on America changed the world forever. Peters (2003:13) argues "… a virtual state proved that modern societies are vulnerable as never before. We are entering a period in which a small number of people operating without overt state sponsorship but using the enormous power of modern computers, biogenetic pathogens, air transport and even small nuclear weapons, will be able to exploit the tremendous vulnerabilities of contemporary open societies."

Linking to Peter's theme of change Esterhuyse and Cedras (2003:3) are of the opinion the post-modern world will be informed by:

- The transformation of the national state;
- The changing interpretation of security;
- The emergence of fundamentalism;
- The emergence of global crime syndicates and the "criminal state", aided and abetted by the use of sophisticated technology;

- The emergence of new social movements (many of which have their roots in protest against globalisation); and
- A hierarchy of power in the world, driven mainly by economic considerations.

From a more institutional perspective Clenn and Gordon (2003, 2004) argue that transnational organised crime will grow to the point where it increasingly interferes with the ability of governments to act. They further argue that the number of democracies is growing, but at the same time there are approximately 50 failed nation-states implying an urgent need for globally-orientated, future-orientated politicians.

Studying the above, from a political/ institutional perspective probably one of the biggest threads the world may face is transnational organised crime that will increasingly interfere with governments' abilities to act, totally redefining the concept of security. This also links to the above-mentioned argument that business needs to play a fundamental role in combating crime. Another emerging future trend is the negativity and protest against globalisation. Section 5.5 discusses the further impact of globalisation.

5.3. The technological environment

The world is currently undergoing a new high-technology revolution. Technology in this context must be understood to be the systematic application of knowledge to resources to produce goods or services (Soltynski, 2003:5). Science and technology will continue to change dramatically over the next 25 years. The synergies and confluence of nanotechnology, biotechnology, information technology and cognitive science are a particularly important new merger of science and engineering (Clenn & Gordon, 2003).

Informational Technology will have a fundamental impact on organisations and the future world of work. Ringland (2002:29) identified the following information technology related future trends:

- Bandwidth explosion and further development of the Internet;
- Processing power increases and processing becomes pervasive;
- Ease of using technology improves;

- Digitalisation of content growth of multimedia;
- Changes in sources of value added within the Information Technology (IT) industry;
- Litigation related to information technology increases; and
- Semiconductor content of electronics increases.

Perez (2002:18) describes the effect of technological transformation on the nature of the economy "techno-economic paradigms." He clustered the technological transformation and the associated techno-economic paradigms into five clusters. The fifth cluster that started to evolve in the 1980's he called the "Age of Information and Telecommunication". This cluster leads to the following emerging paradigms:

- Information intensity;
- Decentralised integration/ network structures;
- Knowledge as capital/ intangible value added;
- Segmentation of markets/ proliferation of niches;
- Economies of scope and specialisation combined with scale;
- Globalisation/ interaction between global and local;
- Inward and outward cooperation/ clusters; and
- Instant contact and action/ instant global communication.

Information Technology is most probably the most influential factor in changing the world as it is currently known – it is leading to an increase in speed and complexity and education. For the world of business this most probably implies a much more informed customer, demanding speed, urgency and efficiency.

5.4. The natural/ physical environment

Du Toit et al. (2003:53) argue that even though the twentieth century has brought unprecedented gains to human development, the impact of humans on the natural world has increased dramatically. At the beginning of the twenty first century several well-established trends yield the following picture:

- Global food production on the whole is adequate to meet human nutritional needs, but distribution problems mean that almost 840 million people remain chronically hungry;
- Soil degradation continues to harm agricultural land causing loss in production in certain regions;
- Water availability is likely to become one of the most pressing resources issues;
- Global energy use is projected to increase by 1.9% annually between 2001 and 2025; and
- At least 1000 species are becoming extinct (biodiversity loss) every year as a result of habitat destruction, hunting and deliberate extermination (Du Toit et al. 2003:6-247).

These trends paint a problematic picture in terms of the sustainability of the natural environment. If these challenges like water scarcity and hunger are not addressed it can seriously impact the future survival of the human race and business.

5.5. The economic environment

Globalisation is described as the increasing convergence and interdependence of national economies and the scope and availability of markets, distribution systems, capital, labour and technology (Verwey & Du Plooy-Cilliers, 2002:8). One of the major drivers of change during the next few decades will not be globalisation so much – but rather how business, civil society, governments and organised labour will respond to and manage the impact of globalisation (Roux & Du Toit, 2003:16).

The CIA's Global Futures Project developed four scenarios regarding the impacts of globalisation on the world. The following is a summary of the outcomes of the four scenarios:

- In all but the first scenario, globalisation does not create widespread global cooperation. Rather, in the second scenario, globalisation's negative effects promote extensive alienation and conflict, while in the third and fourth, they encourage regionalism;

- In all four scenarios, countries negatively affected by population growth, resource scarcities and bad governance, fail to benefit from globalisation, are prone to internal conflicts, and risks state failure;
- In all four scenarios, the effectiveness of national, regional, and international governance and at least moderate but steady economic growth are crucial; and
- In all four scenarios, the United States' global influence wanes.

Roux and Du Toit (2003:16) provides the following summary of the nature, size and organisation of economies, governments and business in the Twenty First Century:

- There seems to be an underlying central belief that authoritarian rule and central economic planning do not work. What is emerging is a continued shift to liberation not only in terms of individual freedom, but also as expressed in increasing reliance on market forces; and
- In manufacturing and production the importance of raw material and unskilled labour is declining, while that of skills and knowledge is increasing.

The future will very much portray how the world will manage the impact and consequences of globalisation. An interesting observation is the possibility of the waning global influence of the United States, bringing the question to mind – who will be the next major global player?

5.6. A Southern African perspective

The above trends and scenarios focused more on a globalised world with the main players being the United States, Europe and China. Given the focus of this study, this brings the question to mind – "What do scenarios look like from a Southern African perspective?" The following is a brief description of some of the scenarios likely to emerge.

5.6.1. The social environment

De Villiers (2004:36-42) is of the opinion that the following will be the key social challenges facing this region from a social perspective:

- The populations of some countries will continue to show moderate growth, but will flatten off and may even decline in others;
- Urban areas will continue to grow; the importance of rural land reform is diminishing;
- Labour migration to South Africa will continue, resulting in increased levels of tension and violence concerning access to jobs;
- Educational backlogs will remain, as will the region's poor skill base; and
- HIV/ AIDS present the region with a developmental crisis.

From the above, it seems that the biggest challenge in the Southern African region will be the management of the HIV/AIDS epidemic, as a population of orphans will present new social and impoverishment challenges. Once again, a pattern of serious deficiencies in the social environment is evident, resulting in tension and violence coupled with a flawed criminal justice system.

5.6.2. The political/ institutional environment

While democracy is growing throughout the world De Villiers (2004:59-64) creates the following scenarios for the Southern African region:

- Countries in the Southern African region are highly interdependent and their political and social problems will always spill over on to one another. Conflict among various groupings competing for resources and limited territorial control can create further havoc, if political leaders don't reduce the social preconditions for instability and violence; and
- The authors create a scenario of the region being governed by a federation of states. The federation will increasingly concentrate on consolidating itself politically and militarily while creating a new "federal" economy. Collapsed states and weak states may still have national governments, but their capacity to control has been reduced and even in certain instances, is totally paralysed. While still nominally a democracy, most of the stronger countries will be effectively governed by authoritarian securocrats.

This scenario indicates the likeliness of the Southern African region to be in future characterised by a federation of states and a new “federal” economy. For the world of work in this region, this may very well lead to a redefinition in the way business is conducted.

5.6.3. The natural/ physical environment

The following are some of the key emerging and future trends found within the Southern African region:

- Land resources will continue to deteriorate;
- Water will become scarcer and its quality will deteriorate;
- Air pollution will worsen;
- Nature conservation will become increasingly privatised;
- Climate changes will continue to affect agricultural and viticulture production and exports;
- Modest progress may be made in managing hazardous waste. Most countries will evolve sound legislation on this issue, but will lack the means to implement it; and
- The exploitation of renewable energy sources may improve (De Villiers, 2004:43-44).

It is also clear that, as in the rest of the world the quest for the sustainability of the natural environment is extremely important. The concern here is more the means available to the different countries within the Southern African region to implement legislation and policies based on the protection of the natural environment.

5.6.4. The technological environment

It is generally accepted that education levels, technological skills and the amount of money spent on research and development are indicators that point to the level of technological sophistication in a country and consequently it’s potential for competing internationally (Soltynski, 2003:4-89). Currently the Southern African

region is not very well positioned from a technological perspective and it seems to be a trend that will continue into the future indefinitely (Soltynski, 2003:90).

This trend implies a “gap” between the technological sophistication of Southern Africa and the rest of the world that will intensify over time. It could therefore be argued that the impact of technology will not have such a radical impact on this area and changes will happen at a much slower rate than in the rest of the world.

5.6.5. The economical environment

Countries in the Southern African region have varied, but often limited prospects for economic growth and diversification:

- If present trends continue, the region’s economies will grow too slowly to create enough jobs and reduce poverty;
- The region will remain dependent on its external trading patterns, with Europe, North-America and China being the main trading partners. All of these countries are still dependent on commodity exports;
- Prospects for expanding intra-regional trade are limited due to the poor capita per income ratios;
- Economic policies will become increasingly market-orientated, albeit at varying rates. This is partly due to the implementation of poverty-reduction strategies;
- The regional energy surplus registered in 1995 is expected to diminish over the next two decades; and
- Cyclical droughts will continue to undermine the region’s food security (De Villiers, 2004:30-35).

For countries in the Southern African region the fight against poverty and the associated social problems is a challenge that will most likely continue into the future.

5.7. Concluding remarks

When analysing the future trends, patterns and scenarios (discussed above) from the perspective of five interrelated dimensions/ subsystems, it seems that, despite the emergence of some promising opportunities, there are many indications that the world is on an unsustainable pathway. Bossel (1998) describes the future world as a global society that is confronted with the mammoth challenge of establishing a future that is environmentally, socially and economical sustainable.
Looking at the future world purely from a dimensions/ subsystems perspective is very limiting in its application. Metcalf (1999) hypothesised that a key problem with this approach is the assumption that cognitive understanding would culminate in rational behaviour. If anything, there seems to be a large amount of evidence to the contrary, despite the ongoing use of strategies based on this assumption.

Universally there are three (3) major assumptions that pervade the practice of decision-making in the world (Kurtz & Snowden, 2003:462). These assumptions, namely order, rational choice and intentional capability were discussed on page 30. The current understanding of the world is largely based on these assumptions, but according to Kurtz & Snowden (2003:462) while these assumptions are true within some contexts, they are not universally true. The practicality of this statement is further evident in the future forecasts of Etzioni (2004), Popcorn (2003) and Shapiro (2000) discussed below.

Etzioni (2004) sees the world edging toward a "chemical fusion" of Western individualism and Eastern social authoritarianism. This movement demands the transformation of an American "semi-empire," based on military force, into a world community based on a "new global architecture" of transnational institutions, that rely less on strength and more on shared interests and values. Etzioni (2004) insists that the transnational community requires informal but "thick" bonds of shared values and customs; moderate religion will play a leading role, especially a nascent "soft" Islam, which will drive out hard fundamentalist Islam and foster the growth of civil society in the Muslim world.

Popcorn (2003) identifies the following trends that will have an increasingly dramatic impact on the direction of the future culture of the world:

Table 4: Future trends

Trend	Trend description
Big Mother	Forget Big Brother, technology creates a new generation of super-observant moms. Consider her tools: classroom cams, RFID tags in backpacks, GPS chips. When children are never out of sight, a whole new mother-child emotional dynamic will result. A part of that: kids strike back. Call it the "Mom Unplugged" syndrome.
Persona Propaganda	Google (the Internet) has created the concept of the "Public Resume" - a new kind of pervasive, email-able DigiTruth. Now that everybody can know everything about almost anyone, an industry will soon evolve to help one manage the public persona-creating the perfect online profile, optimising one's own Google search, giving people control over our digitised public identities.
Identity Terrorism	The most extreme from of "Persona Propaganda," in which the Internet is used as a tool to malign a reputation, either of an individual or a corporation. This new kind of terrorism is bound to be an increasing problem in the years to come.
Profiling Paranoia --	As our personal choices become part of the digital ether (iPod playlists, TiVo configurations, Amazon choices) we will become increasingly worried about how this data can be used. The upside: EGOnomical technology could match us to exciting content, information, even people. The downside: a new digital Gestapo could dictate all the content one sees.
Porn as the Norm	In a culture where, increasingly, anything is acceptable, pornography has become the sole source of titillation. Expect to see it emerge in more platforms, including on our cell phones. Wireless porn is projected to be one of the biggest mobile data applications
The Idoling of America	Pop-democratisation made most visible with the vote-by-text-message phenomenon of American Idol, will soon spread throughout the culture to an unprecedented level. Even personal decisions (should I have another child? Should I marry this woman or not?) could be put to vote by millions of Americans.
Mystic Messages	Fundamentalism is booming. 49% of Americans call themselves "Born Again." The "Left Behind" series regularly tops the best-seller lists. And young people comprise a significant part of this explosion. It is predicted that major marketers will finally recognise this, and will develop products and services targeting this market.

Shapiro (2000) weaves a narrative through events that occurs around the world. He argues that there is an underlying common thread in the technological revolution – not merely a change in how people compute or communicate – but a radical shift in who is in control of information, resources and experiences. In what

Shapiro (2000) labels the Control Revolution, new technology enables individuals to “take” power from governments, corporations and the media.

Based on the preceding discussion of the works of Etzioni (2004), Popcorn (2003) and Shapiro (2000) it is clear what is emerging is the profound impact of speed and complexity on the traditional Social Systems Approach. This clearly indicates that the use of strategies based on the assumptions of order, rational choice and intentional capability are no longer necessarily relevant for the future world and subsequently on the future world of work.

6. CONCLUSION

This chapter commenced with a brief overview on the history of the world that specifically formed the thinking on organisations and leadership. From this analysis it was concluded that the world is experiencing a period of extraordinary change. Both the essence and swiftness of change are fundamentally different from what has occurred in past centuries. This was used as a base of departure to explore the possibilities of making “predictions” of the future world. It was also considered that the future is an abstract concept through which human beings bring symbolic order to the present and meaning to past endeavours.

This exploration led to an analysis of models and theories that could assist in making sense of the future world. It was determined that for purposes of this study the future world of work could be seen as a Complex Adaptive Social System which implies:

- The manifestation of various sub-systems. There is not merely one truth, or one grand theory for explaining everything;
- It should be perceived and understand as a containing whole;
- It should be explored as a process in order to understand how results are “produced” within an organisation; and
- Governance should be an important focus point as it explains how the integrity of that particular system is maintained.

Applying the various systems theories discussed a framework has been developed in order to view organisations and the future world of work as a complex adaptive system. This will be used a basis for the following chapters where the future world of work and leadership will be discussed. It was also recognised that a key problem with the approach followed is the assumption that cognitive understanding would culminate in rational behaviour. If anything, there seems to be a large amount of evidence to the contrary, despite the ongoing use of strategies based on this assumption.

Having analysed models and theories that can be useful in making sense of the future world and specifically the future world of work factors driving futurism was explored.

The following chapter will now focus on the changing world of work.

CHAPTER 3 – THE CHANGING WORLD OF WORK

1. INTRODUCTION

In the previous chapter it was concluded that never before has so much changed so fast and with such dramatic consequences for the entire world. It was also concluded that the rate of change is not going to slow down, and might even accelerate. These changes will also lead to changes in legal and popular concepts about organisations (Starbuck, 2005:48).

Cooper (2005) identifies globalisation, cross national strategic alliances and mergers, privatisation, outsourcing, information technology innovations and the increasing short term contract as factors influencing the dramatic changes in the world of work. He further asks for a systemic exploration of the "changing trends in organisations and what this might mean for the managers and leaders in the Twenty First Century" (Cooper, 2005:11). The purpose of this chapter therefore is to explore the future world of work and what it might mean for the future organisation and its leadership.

In order to understand the organisational perspective and its futuristic challenges this chapter will explore the evolution of organisational theory and conclude with an exploration of the paradigm and supporting philosophies of the future organisation. Beyes (2003:7) argues that there is no clear-cut differentiation between management and organisational theory. Based on this argument the chapter will start to explore the thinking on leadership and management theory through the different stages of organisational evolution. Chapter 5 will provide the reader with a detailed overview of this new emerging mindset on leadership as well as the possible requirements for the future business leader.

2. EMERGENCE OF THE CONCEPT OF ORGANISATION

In order to understand the organisational perspective and its futuristic challenges mentioned above, an exploration of the evolution of organisational theory is

required. This will be discussed by means of the framework introduced in Chapter 2.

2.1. Ancient and Postclassical Period (3500 B.C.E. – 1500)

Organisations are not a modern manifestation and were traditionally viewed as simply a system of consciously co-ordinated activities of forces of two or more persons (Barnard, 1968), or stated differently, “The principle mechanism by which… it is possible to get things done, to achieve goals beyond the reach of the individual” (Parson, 1960:41).

The origins of modern organisations can be tracked back to the Incas in Peru (Peters, 2001:24). The Egyptians utilised organisations as a means to build the pyramids, and the Chinese successfully established irrigation works by means of organisational structure (Etzioni, 1964:1). Another example of a large-scale organisation in the ancient and postclassical period is the Roman military organisation (Narayanan & Nath, 1993:3).

Even though organisations are still primarily viewed as a means to achieve goals beyond the reach of the individual, there are a vast amount differences between the modern organisation and the earliest forms of organisation as will be illustrated in the following sections.

2.2. The Early Modern Period and Modern Period (1500 – 1914)

As discussed in Chapter 2, the early modern world was characterised by interregional networks of trade, conquests and exchanges of ideas that blurred the boundaries between the major societies in the eastern hemisphere and oceanic travel opened the way for a fully global network. Thinking on organisational theory was vastly influenced by the industrial revolution, which brought a widening application of science through technology to industrial development. In its wake came enormous political, social and economic changes.

Some of the key changes included:

- Mass production and consumption that improved living standards;
- Government became more powerful and centralised;
- New forms of financing based upon sound central banking;
- Intensification of the search for energy and natural resources; and
- A protected and institutionalised labour movement developed as the basis of labour management relations (Scott, Mitchell & Birnbarum 1981:1).

2.3. The World Wars and the Interwar Period (1914 – 1945)

Two world wars and a worldwide economic depression of great magnitude provided the global background and foundation for the developments of organisational theory in the first half of the Twentieth Century (see also Chapter 2). Organisational theory commenced at the turn of the century with the iconoclasts of classical theory, such as Weber's bureaucracy (1864-1920), Fayol's functionalism (1841-1925), Taylor's scientific management movement (early 1900's) and the human relations movement that began with research at the Hawthorne plant of Western Electric in 1927 (Evan, 1993:3-5).

Beckhard (1969:2) identifies two meaningful organisational themes throughout this period:

- Through the first third of the century the attempt was to rationalise the way work was done and to utilise the workforce in order to increase the output of products and services; and
- After the Second World War the workforce started to demand a work environment meeting some of their social, survival and security needs, and the "human relations" approach was born.

This era, marked by the influences of the earlier Industrial Revolution and two World Wars, was more of an evolution of not only the classical approach towards organisational design, but also of management theory starting off with a scientific approach to management and concluding with a much more profound emphasis on people and development.

2.4. The Contemporary Period (1945 – 2000)

One of the key impacts on organisations and workology during The Contemporary Period was the rise of the new information economy, (often referred to as The New Economy) driven by communications and information technologies. The information economy was built on the successes of the industrial economy (Grulke, 2000:15). This information economy is however about more than just computers and the Internet. Information and technology forms a large part of the essence of human beings (Cortada, 2002:xix).

During this period and extending into the future, the contemporary business world is becoming increasingly complex, due to the realisation that it no longer corresponds with the old classical view of the world (Senge, 1996). Vitalising the company for the future while outrunning competitors, keeping up with the rapid development of technology and the lack of organisational boundaries all adds to the detoriation of the conventional organisational view (Hamel & Prahalad, 1994), relevant in the previous eras.

2.5. The Future (2000 and beyond)

By the conclusion of the Twentieth Century a major restructuring of work as never known before was beginning to take place (Cooper, 1990:115). The early 1990's were dominated by the effects of the recession and the effort of organisations throughout the Western world to get out of it by dramatically being "downsized", "flattened" or "rightsized" (Cooper, 2005:1-2).

Burke and Cooper (2003) suggest that the Twenty First Century organisation and the world of work will be strongly affected by increased global competition, the impact of information technology, the re-engineering of business processes, smaller companies that employ fewer people, the shift from making a product to providing a service and the increasing disappearance of the job as a fixed collection of tasks.

2.6. Concluding remarks

The danger of discussing the world of work or the emergence of organisations according to timelines is that it makes it seem as though organisational theory and design developed along a continuum. This also implies that all organisations are aligned to the latest thinking in organisational theory. Organisations however still try to implement their sophisticated, multi-dimensional third generation strategies through their delayered, horizontal second-generation organisations (Ghosal in Butcher; 2001:87).

Kimberley and Bouchikhi (2003:215) summarised the different paradigms of organisations between the 19th, 20th and 21st century as follows:

Table 5: Organisational Paradigms

	19th C	**20th C**	**21st C**
Theory of personhood	Interchangeable muscle and energy	A subordinate with a hierarchy of needs	Autonomous and reflexive individual
Information and knowledge	The province of management alone	Management-dominated and shared on a limited basis	Widely diffused
Purpose of work	Survival	Accumulation of wealth and social status	Part of a strategic life plan
Identification	With the organisation and/or working class	Social group and/or organisation	The disenfranchised self
Conflict	Disruptive and to be avoided	Disruptive but tolerated	Normal part of life
Division of labour	Managers decide, employees execute	Managers decide, employees execute thoughtfully	Employees and managers decide and execute
Power	Concentrated at the top	Limited, functional sharing/ empowerment	Diffused and shared

This table demonstrates the difference in the paradigms of organisations, where it is clear that the purpose and concept of work has changed significantly.

In order to more comprehensively understand the organisational perspective and its futuristic challenges, the rest of this chapter will explore the evolution of organisational theory by means of the following framework:

- Early approaches in organisational theory;
- Modern approaches in organisational theory;
- Characteristics of modern organisations;
- Modern organisational design;
- Key challenges facing modern organisations; and
- The paradigm and supporting philosophies of the future organisation and the future world of work.

3. ORGANISATIONAL THEORY: EARLY APPROACHES

During the early years of organisational theory development two main approaches, namely the classical and neo-classical approach can be identified. These two approaches will be discussed in terms of a general overview of the approach, a critique of the approach and the impact of the approach on management theory and practices.

3.1. The classical approach

The classical perspective, which sought to make organisations run like well-oiled machines, remains the basis of much modern management thinking and practises and can be divided into two sub-fields; scientific management and administrative principles (Daft, 2001:12).

Taylor (1903) pioneered the scientific approach that postulates that decisions about organisations and job design should be based on precise, scientific study of individual situations. The scientific management approach focused primarily on the core of the organisation, whereas administrative principles looked at the design and functioning of the organisation as a whole (Daft, 2001:13).

Two researchers namely Fayol and Taylor contributed significantly to the thinking of organisational theory. Fayol built on the management principles of Taylor by

developing the concept of the systematisation of organisational procedures (Wilson, Goodall & Waagen, 1986:28). His theory stated that to be effective, management should be founded upon a well-defined hierarchy of authority. Discipline was what leaders made of it and interpersonal relationships were encouraged to be impersonal (Naranyanan & Nath, 1993: 31).

Weber as quoted in Wilson et al. (1986) argued that the capitalistic system (which fundamentally existed out of administrative principles) contributed to the rise and development of bureaucracy, which literally means government by bureau or agency. This he saw as impersonal and entirely hierarchical. Organisations operated as machines, each cog in the system fulfilled a clearly defined role (Peters, 2001). This bureaucratic model built on unquestioning loyalty became the organisational role model.

Narayanan & Nath (1993:32-3) is of the opinion that the theories that developed during this period reflected dominant cultural assumptions. Firstly the assumption of rationality guided Taylor and his associates in their search for the “one right way”. Secondly, employees were viewed as an inert instrument and lastly these theories assumed that environments and markets are known and stable. This links clearly to the argument put forward by Kurtz and Snowden (2003) on Chapter 2, section 4.1.6. that order, rational choice and intentional capability governs the practice of decision-making in the world.

Daft (2001:13) puts forward the argument that the hierarchical system and bureaucratic approaches functioned well into the 1970’s and 1980’s and are no longer relevant for the modern organisation. Leavitt (2003) offers a reality check by stating that hierarchy remains the basic structure of most, if not all, large, ongoing human organisations. Hierarchies persist because they deliver real practical and psychological value, and they fulfil a deep human need for order and security. Despite the good they may do, however, hierarchies are inevitably authoritarian. From the work of Leavitt (2003) it seems to be more a case of when authoritarian problems occur in hierarchies, they have the potential to corrupt the hierarchies and they become stagnant and informal groups multiply.

3.2. The Neo-classical approach

The period following the scientific management and administrative theories witnessed drastic changes in the environment and in people's view of their own behaviour (Narayanan & Nath,1993:33). Mechanisation was rapidly replacing human effort and communication and transport systems improved, which in turn brought people together on a larger scale than before. At the same time the population was growing and unions and strikes began to appear. These issues were further complicated by the world depression in 1933, characterised by unemployment and low morale (Ibid:4-5).

A major breakthrough in terms of human relations occurred with a series of experiments at a Chicago based electrical company, which came to be known as the Hawthorne studies. The publication of these findings led to a revolution in worker treatment and laid the groundwork for human relations and behavioural approaches (Daft, 2001:13), known as the neo-classical approach or the human relations model.

This change in thinking at that time is clear in Barnard's (1938:42) beliefs that a formal organisation corresponds to its people's "reasoned and calculated actions and policies." A formal organisation is a conscious structure designed to reconcile the opposing forces of specialisation and co-ordination. The organisation does so by using rules, policies, record keeping and standardised personnel practices (Barnard, 1938).

The neo-classicists tried to compensate for the limitations of classical theory by modifying it with insights from the behavioural sciences. The human movement was not attempting to change classical theory so much as they were trying to make it "fit" the realities of human behaviour in organisations (Scott, et al. 1981:40). The following table adapted from the work of Narayanan & Nath (1993:36) compares the Human Relations Model with Classical Relations Theory:

Table 6: Human Relations Model & Classical Relations Theory Compared

Dimension	Human Relations Model	Classical Relations Theory
Socio-cultural milieu	Emerged in an era of social ethic, government involvement and economic environment of depression	Arose in a era when the need to reap efficiencies of large-scale production had to be fulfilled in the presence of a work force of low educational levels
Assumptions about human beings	Social man	Economic man
Assumption about environment	Stable environment (Implicit assumption)	Stable environment (Mostly Implicit assumption)

In the previous Chapter (p 47) it was argued that most decision making strategies are based on the assumption of order and the production of prescriptive and predictive models. This table clearly indicates the presence of this paradigm in the early approaches of organisational theory development

Scott et al. (1981:34) are of the opinion that the neo-classicists never really had a theory as did the classicist. The following table adapted from Narayanan & Nath (1993:36) compares the Human Relations Model with Classical Relations Theory in terms of the approach towards management:

Table 7: Human Relations Model & Classical Relations Theory - management approach

Dimension	Human Relations Model	Classical Relations Theory
Central problem of management	Building cooperative systems for efficiency	Control for efficiency
Managerial solutions	Manipulate workers by building informal relations	Job and organisational design
Approach to management solutions	Universal solutions are feasible	Universal solutions are feasible

This table supports Scott et al. (1981) argument that the neo-classical school included all those who protested against the inadequacies of the classical model but were not willing to divorce themselves from it completely.

3.3. Concluding remarks

The late 1960's and early 1970's bought forward the realisation that the classical approach was only valid for certain organisations and the concepts of the neo-classical approach only applied to a limited section of organisations (Rogers & Argarwala-Rogers, 1976:48). The conventional way of organisational analysis ignores the nature of social life along with the tendency to exclude the manner in which the world is socially constructed and constrained (Silverman, 1979:218-9). The imperative of interdependency, the necessity of reducing complexity and the need to produce manageable simplicity requires a different mode of thinking, a holistic frame of reference (Gharajedaghi, 1999).

The need for a "new" way of thinking about organisations was born and it is very evident in the 1990's view on organisations, which defines an organisation "...as many people organised in their efforts to deliver a product or service in order to benefit those contributing effort through quality of life, meaningful work, a sense of community and financial compensation, and to benefit the communities where it exists directly" (Morgan, 1993:15). In the following section the systems and contingency approaches discussed in Chapter 2 will be applied to organisational theory.

4. ORGANISATIONAL THEORY: MODERN APPROACHES

In the late 1950's the imperative of interdependency, the necessity of reducing complexity and the need to produce manageable simplicity required a different mode of thinking on organisations. This was further coupled with a realisation that organisations are not similar in nature (Verwey & Du Plooy-Cilliers, 2003:28).

The aim of this section is to discuss the changing thinking in organisational theory that started to occur roughly in the 1950's where organisations were conceptualised as an interrelated system (Kefelas, 1977:26). Seiler (1982), Baudhein and Schuelke (1982:18) and Katz and Kahn (1966) were some of the first people to apply general systems theory to organisations which was made

popular in the 1990's by Senge (1990) with his book titled "The fifth discipline: The art and practise of the Learning Organization". The theories on organisations as systems also evolved to cater for aspects like chaos, complexity and contingency, as will be discussed below from an organisation perspective.

4.1. Organisations as natural systems

The view of organisations as natural organic systems, emphasising commonalities among organisations and other social systems can be traced back to the work of social theorists like Rousseau, Proudon, Burke and Durkheim (Scott, 1992:72). Scott (1992:75) argues that organisations, as natural systems evolve and develop by natural growth and are characterised by spontaneity.

The following is an overview of a systems model of organisations as proposed by Narayanan and Nath (1993:69-88). This model is anchored in certain crucial assumptions pertaining to the character of organisations:

a) Organisations are highly complex open systems and share the following properties:
   - Static and dynamic equilibrium;
   - Interdependence;
   - Feedback loops;
   - Stability and change;
   - Equifinality and multifinality;
   - Different levels;
   - Consist of sub-systems;

b) The boundary of the organisational system is stable at a given point in time, but changes over time;

c) Organisations have multiple inputs and outputs and are in continual interaction with the environment; and

d) The organisational subsystem is divided into five (which will be discussed below) internal interdependent subsystems.

The following figure (Figure 8) is a conceptual view of the Systems Model of Organisations:

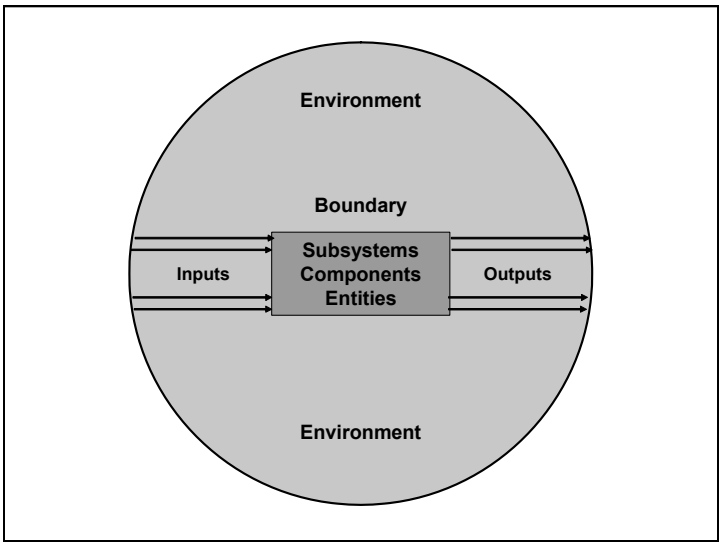


Figure 8: Outline of the Systems Model of Organisations

The key elements of this model may be described as follows:

- **Environment:** Each organisation is embedded in an environment;
- **Inputs and Outputs:** The type of inputs and outputs vary depending on the nature and the scope of the organisation; and
- **Subsystems:** Conceptually the five interdependent subsystems can be represented as follows:

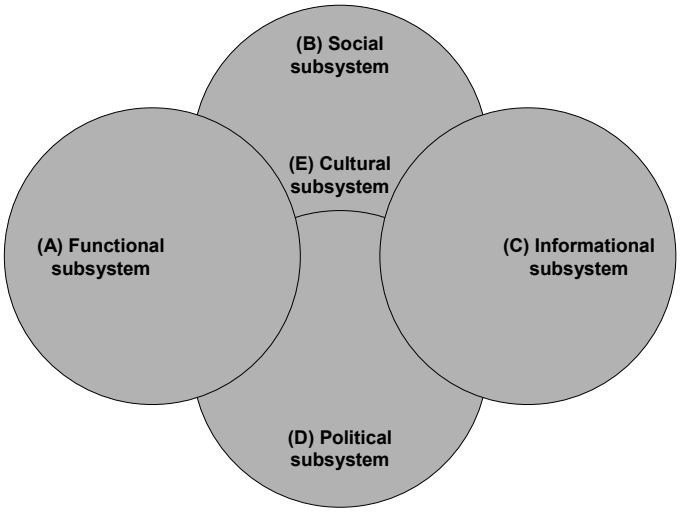


Figure 9: Subsystems of the Organisational System

The following is a description of the five subsystems mentioned in figure 9:

Table 8: The Five subsystems of an Organisation

Characteristic	Functional subsystem	Social subsystem	Political subsystem	Informational subsystem	Cultural subsystem
Focus	Formal	Social	Power relations	Information systems & structures	Enduring & unarticulated aspects
Components	Authority, span of control, job descriptions, rules, policies	Social activities, needs, feelings, attitudes	Power, conflict, coalitions	Written documents, network, filter	Shared assumptions, beliefs, norms, values
Management task structure	Organisational design	Organisational development	Governance	Design of information/ structure	Culture, myths
Process	Decision making, conversion	Interaction, informal communication	Politics, conflict	Collection, coding, data transmission	Transmission, socialisation
Individual roles	Performer of tasks	Social being	Opportunist	Information processor	Carriers of culture, “heroes”
Underlying norms	Efficiency	Harmony	Pragmatic & expedient	Accuracy	Conformity with central values

This systems model is rooted in an ideology that emphasises openness to the environment, holistic thinking, recognition of patterns, synthesis, appreciation of an organisation and a departure from the search for single optimal solutions.

4.2. Organisations as open, social systems

Ackoff (1994) defines an organisation as a social system. What distinguishes organisations from other social systems (a committee, a church) is the different ways in which they use communication to produce decisions (Luhmann 1986). Organisations maintain their existence through an on-going process of decision-making, continually establishing their own identity while distinguishing themselves from their environments. This is exemplified in Senge's (1990) description of systems archetypes and feedback loops.

Luhmann's (1984:191) theory (as quoted in Beyes, 2003:11) on organisations as social systems is grounded on instability and the constant reduction of complexity to maintain the system's identity in differentiation to the environment. Beyes (2003) further argues that gains in clarity and distinctness go hand-in-hand with losses in variety. The attribution of action and casual effects of actions is part of the decrease of complexity and conceals the much "richer" system's reality. Any organisation continuously describes itself as a system of actions in order to observe itself (and to be observed), and to control its reproduction.

The notion of levels of systems that vary both in the complexity of their parts and in the nature of the relationship among the parts has been fully elaborated by Boulding (1956:200-207) who identified nine levels of systems. Miller (1978) identified seven basic levels of systems. The work of both Miller and Boulding suggest that as systems become more complex they tend to become more loosely coupled, more dependent on information flow, more capable of self maintenance and more able to grow and change.

Theorists like Buckley (1967:50), Pondy and Mitroff (1979) and Verwey and Verwey (2003:77) view organisations as open social systems that are constantly in interaction with a broader society, simultaneously shaping and being shaped by broader social forces. The system's survival is dependent on its participants contributing resources, time and energy to it. It also implies that an open system has boundaries and must expend energy in boundary maintenance. In Chapter 2 (section 4.1.) it was concluded that social systems could be both open and closed at the same time.

Organisations as open systems mentioned above have boundaries. Miller and Miller (1992:26) define a system boundary as the region of increased density surrounding a system. The purpose of the boundary is to (1) act as a barrier to flows of input in and out of the system, (2) is a selective filter that protects the system.

In conclusion, viewing organisations as a social system implies certain characteristics. The following characteristics of organisations as social systems are an adapted abstract from the work of Ackoff (1994):

Table 9: Organisations as social systems

Specification	Comments
Conceptualisation	Organisations are a purposeful association of autonomous members.
Purpose/ function	Members serve themselves, their associates, and their environment through feedback and development.
Structure	Chosen structure that is recreative and multiform.
Processes	Designed and chosen with culture and worldview playing a role.
Environment	Open system, stakeholders have an interactive influence on the environment.
Requirements	Learning, development and omnicompetence.
Approach to planning	Interactive participative planning, idealised redesign.

This table confirms the framework developed in Chapter 2 section 4, implying for the purposes of this research that the future world of work must be discussed as an interrelated whole, focussing on the purpose, processes and governance mechanisms of the future organisation.

4.3. A contingency approach towards organisations

Lawrence and Lorsch (1967) coined the label “contingency theory” and argued that different environments place different requirements on organisations, especially when the environment is characterised by uncertainty and rapid changes in market conditions and technology.

When analysing the literature on organisational contingency theory (Gailbraith, 1973; Williamson, 1985 and Scott, et al. 1992) four themes describing this theory on organisations can be identified:

- There is no one best way to organise;
- Any way of organising is not equally effective;

- The best way to organise depends on the nature of the environment to which the organisation relates; and
- The form of the organisation does matter.

4.4. Stratified systems theory (SST)

The purpose of this section is to discuss the implications of SST, developed by Elliott Jaques, for organisational design, form and function whereas the implications of levels of complexity for leadership within organisations will be discussed in section 6 of this chapter.

Jaques first introduced the concept of the requisite organisation and SST in 1989 in his book Requisite Organization. He defined the term requisite organisation as "doing business with efficiency, and competitiveness, and the release of human imagination, trust and satisfaction in work" (Jaques, 1996:2). Essentially, the stratified-systems framework suggests a general model of organisational functioning such that there are increasingly complex critical tasks or requirements at each organisational level. The increasing task complexity is a function of the uncertainties created by the necessity to deal with a more encompassing and turbulent environment (Hunt, 1996:15).

Jaques (1996) suggests that it is not a new type of organisation that is needed, but rather the understanding that organisations operate as "managerial accountability hierarchies" (MAH). The MAH is often referred to pejoratively as a bureaucracy, but being a human institution the potential is there that it could be marvellously creative.

The basic stratified approach argues that the maximum number of organisational levels needed in the organisation to which it is applied should not be more than seven. The following is a summary of the levels based on Jacobs & Jaques (1987) Jaques (1989) and Jaques (1996):

Table 10: Stratified Systems Theory

Level	Level of task complexity	Domain
VII	Construct complex systems	Unbounded Open systems
VI	Oversee complex systems	
V	Judge downstream consequences	Bounded Open systems (Sub-systems)
IV	Parallel process multiple paths	
III	Create alternative pathways	Direct Production within the context of the larger system.
II	Diagnostic accumulation	
I	Overcome obstacles Practical judgement	

From the above table it can be seen that the level of task complexity increases at the different organisational levels. Level I work is concerned with the hands-on practical elements of work, whereas Level VII focuses on the tasks concerning the construction of systems. Olivier (2003:32) adds an essential task dimension to the original theory of Jaques, called the Themes of Work Complexity as illustrated below:

Table 11: Themes of Work Complexity

Work Themes	Essential Tasks	Time Span
Corporate Prescience (VII)	Sustaining long-term viability, defining values, moulding contexts	20-50 years
Corporate Citizenship (VI)	Reading international contexts to support/ alert Level V strategic business units	Up to 20 years
Strategic Intent (V)	Overview of organisational purpose in context and accountability for sustainability of a unified work system	Up to 10 Years
Strategic Development (IV)	Integrating, modelling new futures, new services and products, positioning the organisation within the market context	Up to 5 years
Practice (III)	Constructing, connecting and fine-tuning systems, making most of resources	2/3 years
Service (II)	Supporting/ servicing workers in the Quality Theme and customers/ clients	1 year
Quality (I)	Hands-on Skills	3 months

This table suggests that work on a Level I is limited in its level of complexity as it is concerned with quality and hands on skills and the impact of the work is usually

short lived. Work on a Level VII focuses on a 20 to 50 years time span, leading to severe complexity that is in essence about shaping the industry and focuses on long term viability.

4.5. Conclusion: The impact of viewing organisations as social systems

Leavitt, Dill and Eyring (1973:4) advocate that the modern organisation is a complex dynamic system, but business organisations differ from other living systems. This section focuses on the work of Katz and Kahn (1966); Emery and Trist (1960); Ackoff (1994) and Luhmann (1984, 1995) arguing that organisations are a special class of open systems even though they share properties in common with all open systems:

- Organisations are purposeful associations of autonomous members;
- The open systems approach begins by identifying and mapping the repeated cycles of input, transformation, output and renewed input which compromise the organisational pattern;
- Organisations as social systems are grounded on instability, and the constant reduction of complexity to maintain the system; and
- Open systems survive only as long as they import more energy than they expend from the environment in the process of transformation.

This in itself implies certain leadership challenges to the person(s) leading an organisation as a social system. Oshry (1999:151-188) describes the system leader as someone who has deep knowledge regarding the dynamics of systems. These people are not blinded by system limitations and tend to lead from the inside – seeking to bring the system to an awareness of itself. They understand that there is no one best way to organise; the best way to organise depends on the nature of the environment to which the organisation relates.

In Chapter 2, section 4.3 it was also concluded that leaders need a systems ability implying the ability to make sense of what is currently happening, creating possible

futures for the organisation and realising that a change in one area of the system will have an immediate effect on the rest of the system.

Modern organisational theory, unlike the more classical approach, is not about the "one grand" theory, but in essence recognising that various theories can add to the attempt to explain organisations. Based on the discussion of the literature above, viewing organisations as social systems have the following implications for this research:

- Organisations are a purposeful association of autonomous members;
- Organisations as social systems are grounded in instability, and the constant reduction of complexity to maintain the system;
- There are increasingly complex critical tasks or requirements at each organisational level, created by the necessity to deal with a more encompassing and turbulent environment;
- Organisations are complex adaptive systems, simultaneously open and closed;
- The system's survival is dependent on its participants contributing resources, time and energy to it; and
- The role of the leader is to co-ordinate this complex system by making sense of what is currently happening within the system, creating possible futures for the organisation and realising that a change in one area of the system will have an immediate effect on the rest of the system.

This section has dealt with organisational theory mainly from a systems perspective. The following section will now explore the modern organisation in terms of its characteristics and design that is very much anchored in a systemic paradigm.

5. THE MODERN ORGANISATION

Cooper (1999) describes the 1980's as the decade of the "enterprise culture", with people working longer and harder to achieve individual success and material rewards. He further argues that globalisation, privatisation, process re-

engineering, mergers and acquisitions, strategic alliances and joint ventures all combined to transform workplaces into hot-house, free market environments.

The 1990's, characterised by the economic recession and technology advances, lead to many organisations being smaller, information overload as well as an acceleration of the pace of work and a greater speed of response (Cooper, 2005:2). The modern organisation is no longer characterised by high volume production of goods and services at a central location. Research into the philosophy, meaning, architecture and design of the modern and emerging future organisations has caught the attention of researchers and the literature in this area has been quite widespread (Galbraith & Lawler, 1993; Reich, 1991; Ohmae, 1990; Bartlett & Ghoshal, 1989).

What is emerging more and more is a decentralised and networked organisation, focussing on specific customer needs (Reich, 1991). Giving support to the shape of things to come, Gerstein and Shaw (1992) hypothesised that modern organisations are likely to have "new" characteristics like networks, autonomy and fuzziness. The rest of this section is devoted to theories on the design of the modern and emerging future organisation.

5.1. Characteristics of modern organisations

Kotter (1996) identified the following characteristics of modern organisations:

- Persistent sense of urgency;
- Teamwork at the top;
- People who can create and communicate vision;
- Broad based empowerment;
- An adaptive corporate culture; and
- No unnecessary interdependence.

Arie de Geus (1997:51-59) puts forward an argument that organisations, due to an exclusive focus on economics, are not "living" companies. Although there are examples of organisations that have been in existence for hundreds of years

(churches, universities, the Salvation Army) commercial organisations generally do not live very long. In his research, De Geus found that successful companies have a number of personality or behavioural traits in common:

- Conservativeness in financing,
- Sensitivity to the world around them,
- Keen awareness of own identity, and
- Tolerance for new ideas.

A similar argument to that of De Geus is put forward by Kiefer & Senge (quoted by Adams, 1984:70) when they describe the metanoic organisation as having five key characteristics:

- A deep sense of vision or purposefulness;
- Alignment around that vision;
- Empowering of people;
- Structural integrity; and
- The balance of reason and intuition.

Stewart (1992:92-98) describes the modern organisation as:

- **High involvement workplace**: meaning operations with self-managing teams and other devices for empowering employees;
- **New emphasis on managing business**: implying a productivity turbo charger integrating business processes and material and handling, instead of having different functional departments;
- **Evolution of information technology** to the point where knowledge, accountability and results can be distributed rapidly anywhere in the organisation;
- **Self-management** to the extent that workers will have the incentive and power to respond to whoever buys their output; and
- Nurturing of the **capacity to improve and innovate** meaning that learning becomes the axial principle of organisations. It replaces control as the fundamental job of management.

It can be concluded that the modern organisation is characterised by:

- A sense of purpose and meaning, a keen awareness of its own identity;
- Alignment around the organisational vision with the integration of different functions, processes and departments;
- High involvement workplace, focuses on empowering people where self management forms the core of control, teamwork;
- Values innovation and improvement implying continues learning forms part of the values and principles of the organisation;
- A resilient and adaptable organisational culture;
- A sense of urgency coupled by a conservative approach towards finance; and
- A keen awareness and sensitivity towards the external environment.

This clearly demonstrates the social systems perspective described in the previous chapters and sections. If the above-mentioned is the typical characteristics of the modern organisation the following question is how does a modern organisation look like, “what is the design of the modern organisation?”

5.2. Design and models of the modern organisation

From the discussion in section 5.1. it is clear that the modern organisation should have a more flexible, adaptable, integrated design to cater for the characteristics of the modern organisation. The following table (Table 12: Organisational Design) will provide an overview of some of the most prominent thinking on organisational design and models.

Table 12: Organisational design

Design	Influential Thinkers	Description of the Design
Adhocracy	Toffler (1970) Mintzberg (1979)	Adhocracy is a non-bureaucratic network organisation, where these organisations depend on many rapidly shifting project teams and much lateral communication. Mintzberg (1979) further evolved the concept where his adhocracy represents smaller-scale, fluid structures. What typically happens is that a group of line managers, employees and operating experts form small project focussed teams with their own terms of reference. Mintzberg (1979) defined two types of adhocracy, namely the Operating adhocracy who operates on behalf of its clients and the Administrative adhocracy that tend to serve itself. However, managers within an adhocracy may spend too little time strategising. The key is to find a balance between the need for action (implementation) and taking a longer-term view in terms of being sensitive to changes occurring within the environment.
Agility	Goldman, Nagel & Preiss, (1995)	The concept of corporate agility is a response to the need of organisations to be more adaptive to changing market conditions. It recognises that the speed of responses to market opportunities and threats distinguishes many successful organisations from their lumbering adversaries. Agile competition is a system consisting of strategic dimensions, allowing organisations to migrate from one business to another. This implies a complexity beyond the speed of a response, it is the organisations ability to adapt and make lateral moves. The dimensions are defined as follows: • **Organising to master change and uncertainty**: An agile organisation is organised in a way that allows it to thrive on change and uncertainty. • **Leveraging the impact of people and information**: An entrepreneurial culture that leverages the impact of people and information is nurtured and invested into. • **Co-operating to enhance competitiveness**: This dimension of co-operations is important both from an internal as well as an external perspective, e.g. co-operating with other companies. • **Enriching the customer**: Customers perceive the organisation as adding value and enriching the customer, not only the organisation itself.

Core competencies	Evans & Schulman (1992) Hamel & Prahalad (1994) Lawler III and Ledford (1997)	Hamel and Prahalad (1994:243-259) were the American champions of the concept core competencies, suggesting in their book Competing for the Future that a core competence should provide potential access to a wide variety of markets, make a significant contribution to the perceived customer and be difficult for competitors to imitate. Stalk, Evans and Schulman's (1992) approach focussed suggested a similar concept, but labelled it strategic capabilities. These capabilities are more operational than technical in nature and will provide an organisation with a competitive advantage in their market place. A key determinant of the usefulness of competencies and capabilities lies in determining whether they lead to different thinking about the design of organisations. The implication of this statement is that once an organisation has determined the strategy, competencies and capabilities, structures, processes, reward systems and human resource management practices then need to be developed in order to produce the competencies and capabilities.
Project/ Matrix model	Crainer & Dearlove (2001) Morgan (1989)	The matrix model was developed by Philips and represents a compromise between centralisation and decentralisation. It was an organisational structure that was developed as an attempt to deal with the complexities of managing large organisations across different national markets. The special characteristic of a matrix organisation rests in the fact that it has decided to give more or less equal priority to each functional department. Therefore people working in the various product or business teams that cut across the functional areas have to work with two perspectives in mind: functional and end product (Morgan, 1989:64-67). The matrix model is based on project structures. The only difference is that when a project is completed the system that supported it is terminated. The various system components in the matrix organisation are assumed to have indefinite life spans (Scott et al. 1981:55).
Shamrock organisation	Handy (1989)	Shamrock is a form of organisation based around a core of essential executives and workers supported by outside contractors and part-time help. It consists of a three-leaf clover and is defined as: • The **core workers**, consisting of talented dedicated professionals. • The **contractors** are the specialists who carry out work considered nonessential by the core workers. • The **flexible labour force** is made up of the part-time and temporary workers who work or don't work) according to the peaks and troughs in customer demand.

		The consequences of such an organisational structure according to Crainer and Dearlove (2001:104) are that organisations will tend to resemble the way consultancies, advertising agencies and professional partnerships are currently structured.
The virtual organisation	Byrne, Brandt & Port (1993) Davidow & Malone (1992) Grieves (2000)	Increasingly, terms such as virtual teams and virtual organisations dominate the literature when new economy organisations are discussed. Byrne, Brandt and Port (1993:98) define the virtual organisation as a temporary network of companies that come together quickly to exploit fast-changing opportunities. Davidow and Malone (1992:102-107) define it as a metacorporation, implying that the organisation's sphere of influence extends upward through its suppliers and downward through its distribution channels and even to the end-user. Grieves (2000:420-421) describes the characteristics of virtual organisations as follows: • **Knowledge intensive**: The pursuit and sharing of knowledge to continuously innovate; • **Meta-management**: Strategic management of a network of independent companies which collectively become interdependent; • **Fluidity and transformation**: Dependence on organisational learning; • **Excellence:** Focus on customers in order to be world class • **Culture**: Information and knowledge sharing, empowerment and trust between companies From the above it can be seen that the virtual organisational design focuses on collaboration between the different networks in order to "negotiate" mutual benefit for all. This collaboration is based on knowledge sharing, learning, trust and empowerment between the different networks.
Learning Organisation	Senge (1990, 1992)	A learning organisation is a group of people continually enhancing their capacity to create and innovate. Successful companies will be learning organisations that gain the commitment of all their people, whilst simultaneously developing their people's capacity to learn. Five disciplines need to be mastered in order to create a successful learning organisation namely, personal mastery, mental models, building shared visions, team learning and systems thinking.

It is evident from the table above that modern organisation design is characterised by the need for urgency, speed, growing complexity and learning with the aim of continuous innovation.

In Chapter 2 it was concluded that systems approaches allow for the study of the abstract organisation of phenomena, a useful thinking framework to explore an unknown future. Therefore, the next section will explore the trends, patterns and scenarios of the future world of work from a systems perspective whereas Chapter 5 will focus on the changing work and nature of leadership.

6. FUTURE WORLD OF WORK – A SYSTEMS PERSPECTIVE

"Philosophical questions do not primarily deal with the content of what we observe, but with the thought mechanisms, by means of which we think about the world" (Van Niekerk, 2004). These thought mechanisms can be defined as 1) concepts and 2) ideas. Concepts are defined as the thought mechanisms which are utilised to identify and categorise the field of experience. Humans use concepts to distinguish for example between trees and cars, to make sense of the field of observation. Ideas are thought mechanisms by means of which humans interpret (i.e. evaluate) their field of experiences (Van Niekerk, 2004).

When applying the science of philosophy to the future world of work it is evident that in studying this phenomenon researchers cannot divorce what they see in the world from the concepts and ideas which are currently used to make sense of the world. The study is therefore constrained by the lenses of current concepts and ideas.

In this context Giddens (1991:41) warns though that in the social world people are both subjects and objects of knowledge; the fact that people are researched/ known might also influence behaviour. He continues his argument by stating that social reality is constantly infused with meanings that "spiral in and out" – the more people learn, the more it changes and influences their knowledge.

A case has been made that social systems theory is a useful framework to understand and interpret the changes in the world, because social systems theory provides a meaningful way to study and explain complex manifestations. In the rest of this section the future world of work (trends, patterns and scenarios) will be discussed as a complex adaptive social system, using the framework defined in Chapter 2 (Figure 6, p35) as a base for the argument.

6.1. Creating a thinking framework

A case has been put forward that this study is constrained by the lenses of current concepts and ideas. A thinking framework (see Figure 10, p78) based on the above model (Figure 6, p35) was therefore developed in order to serve as a metaphor for the future organisation and world of work.

Assumptions of the thinking framework

- The framework is a "whole" that cannot be divided into independent parts, because the behaviour of the parts and their effect on the whole depends on the behaviour of all the parts interacting with one another; and
- The framework is grounded on instability.

Components of the thinking framework

- **External macro context:** The organisation of the future and the work situation of the future will operate in the context of an external macro environment. The implication of this is twofold:
    - The organisation and the concept of work could survive only as long as they import more energy than they expend from the external macro environment in the process of transformation; and
    - Changes in the external macro environment could have an impact on the bigger organisation system and/ or the different sub-components.

- **Organisation of the future** and the **work situation** are macro systems consisting of a number of interrelated sub-systems. Due to the theory that

the future concept may not entail an organisation, they are discussed from two different perspectives, with the emphasis on the work system.

Graphically the thinking framework can be summarised and illustrated as follows:

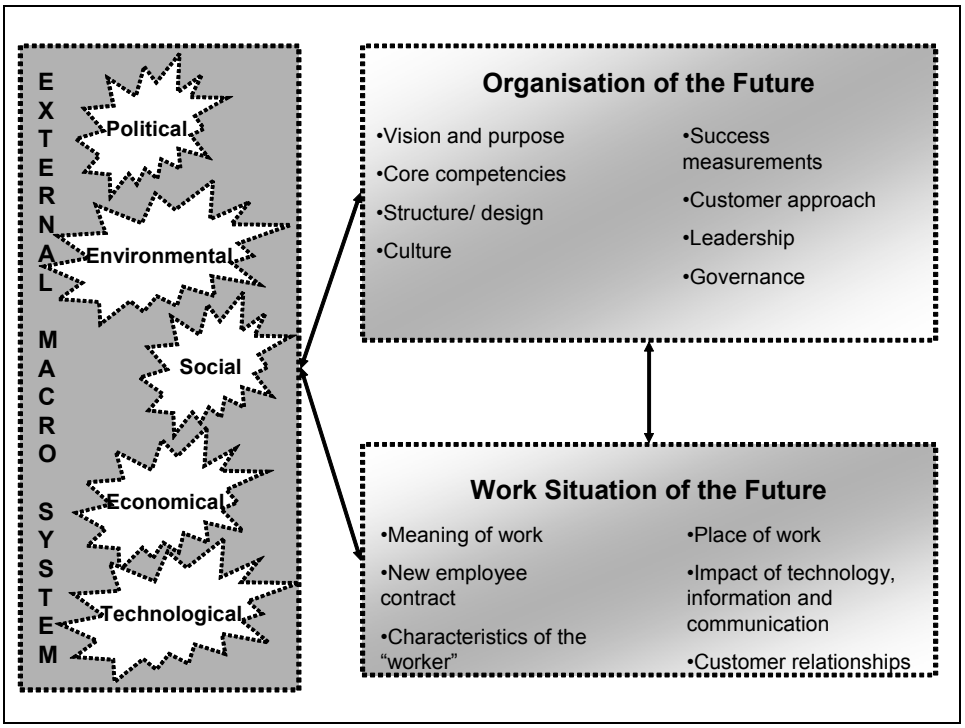


Figure 10: A thinking framework for the future organisation and world of work

6.2. External macro context

The external macro environment was discussed in Chapter 2, section 5 and concluded with a PESTE analysis in section 6. Adding to this, Starbuck (2005) puts forward a stimulating argument that it seems likely that four mutually interdependent arenas of conflict will have a special relevance for leaders of large organisations through coming decades:

- The conflict between the affluent and the moderately poor;
- The conflict between companies and nations;
- The conflict between top management and other stakeholders; and
- The conflict between the short run and the long run.

This implies a world of paradox, merely contributing to the levels of complexity that could be expected from the future world of work and adding to the challenge facing the future business leader.

6.3. Organisation of the future

Utilising the organisation of the future thinking framework (Figure 10, p78) and the Complex Adaptive Social systems framework (Figure 6, p35) the organisation of the future will be discussed as follows:

Organisation of the future thinking framework	Complex adaptive social systems thinking framework
Vision and purpose	Characteristics and purpose
Core competencies	
Structure & design	Processes, subsystems, making sense of what is happening and how results are produced
Culture	
Success measurements	
Customer approach	
Leadership	Governance, how the integrity of the system is maintained to ensure survival of the system
Governance	

6.3.1. Vision and purpose

Drawing on the discussion regarding the modern organisation in section 5 it is likely that the organisation of the future's vision and purpose will be focused on meaning and the offering of solutions. There can be little doubt that organisations in future will have to demonstrate their value beyond the traditional return on investment to society.

Hey and Moore (1998:232) introduced a term of engagement for organisations, which they labelled the vital organisation implying a future organisation that will be a community of meaning by listening, producing what is desired, and becoming a long term partner to its customers.

6.3.2. Core competencies

Hamel and Prahalad (1994: 243) argue that an organisation must be viewed not only as a portfolio of products or services, but a portfolio of competencies as well. In section 5.2. (Table 12) it was argued that core competence should provide potential access to a wide variety of markets, make a significant contribution to the perceived customer and be difficult for competitors to imitate.

According to Lawler III (2002:224-5) it is up to an organisation's executives to define a strategy that will ensure the longevity of the competitive advantage an organisation gains through its competencies. With the development of more and more disruptive technologies, organisations increasingly need to develop new core competencies (Christensen, 1997). Lawler III (2002:238) stresses that probably the most important competence for any organisation is to change rapidly, a competence that can systematically be developed.

Guptara (2005:117) is of the opinion that in the future world, the new core competencies of organisations are going to focus on only three areas:

- Excellence in marketing (excellence in recruiting and retaining a loyal base of customers);
- Excellence in organising and operating an "intelligent"/ robotic value chain; and
- Excellence in innovation (new products, services, ways of marketing and ways of organising logistics, perhaps through technological creativity and innovation).

Linking to the theme of innovation, Prahalad and Ramaswamy (2004:138-153) state that the future organisation is likely to utilise supply networks as an important source of competence. They define networks as the whole system – the organisation, suppliers, partners and the consumer. This once again links to the theme of viewing organisations as complex adaptive social systems.

6.3.3. Structure and design/ Place of work

Section 5 provided a detailed description of modern and emerging organisational designs. Haubner (1996:10) advocates that these new designs/ forms are often described through metaphors, because it allows the author to convey new and unfamiliar features by way of recognisable and familiar images.

For many employers the virtual workplace, in which employees operate remotely from each other and from managers, is a reality now, and all indications are that it will become even more prevalent in the future. This represents a dramatic change in how people work, and it alters the very concept of an organisation as a fixed location where people gather to work (Cacio, 2002:203).

6.3.4. Organisational culture

Cartwright and Cooper (1992:52) define organisational culture as the "internalising of a set of values, feelings, attitudes and expectations, which provide meaning, order and stability to organisational members' lives and influence their behaviour".

Banathy (1996:45) argues that organisations must break out of the old frame of thinking and reframe it. He provides the following summary on the changes in organisational culture.

Table 13: Changes in organisational culture

The old story	The new story
• Fixed bureaucratic structure	• Flexible and dynamic structure
• Status-laden and rigid	• Functional and evolutionary
• Power resides at the top	• Power shared by empowerment
• Motivate, manipulate people	• Inspire, care for each other
• Compliance is valued	• Value creative contribution
• Focus on problems	• Focus on creating opportunities
• Blame people for failure	• Support learning failure
• Short term focus	• Long term perspective
• Past regimen enforced	• Innovation and novelty nurtured
• Work within constraint	• Seek the ideal

• Progress by increments • Technology and capital based • Linear/ logical/ reductionist • Emphasis on high volume • Insisting on the “right way” • Driven by survival needs • Motivated by production • Need external acknowledgement • Adversarial and competitive • Goals are succeed, and to go ahead	• Progress by leaps • People and knowledge based • Dynamic/ intuitive/ expanding • Emphasis on high value • Encouraging learning/ exploring • Desire to develop, fulfill self • Personal/ collective satisfaction • Acknowledgement comes from self • Cooperative and supportive • Aim at having integrity and individual and collective identity

From the table it is clear that not only are the future organisation characterised by a meaningful, faster, flexible innovative and more complex approach, but its culture is also supporting this approach. This table also supports the social systems thinking on organisations (as discussed in section 4) and the future world of work as the table provides for purpose, meaning, integration and an evolutionary approach.

6.3.5. Success measurements

As business moves into the future, the old methods of reporting are proving to be insufficient. It is widely recognised that financial sustainability is no longer sufficient justification for a company’s performance. New forms of corporate disclosure which integrate financial, environmental and social reporting are starting to take shape (Kaplan & Norton, 1992, 1996). Handy (1994:225-226) suggests that the following aspects need also be included in the balance sheets of organisations:

- Intellectual assets (brands, patents, skills base) including expenditure to enhance these assets such as research and development and training;
- Customers (quality of goods and services and customer satisfaction); and
- The environment (investment in environmental control and improvement, expenditure on community work and investment in the community).

In this section, various measures of organisational success (or performance) are discussed.

6.3.5.1. Balanced Scorecard

Kaplan and Norton (1996:8) describe the innovation of the balanced scorecard as follows: "The balanced scorecard retains traditional financial measures. But financial measures tell the story of past events, an adequate story for industrial age companies for which investments in long-term capabilities and customer relationships were not critical for success. These financial measures are inadequate, however, for guiding and evaluating the journey that information age companies must make to create future value through investment in customers, suppliers, employees, processes, technology and innovation."

The balanced scorecard combines four perspectives, namely financial, customer, internal processes and innovation, and organisational learning perspectives helping leaders to look at the organisation from an interrelationships perspective – once again linking to the theme of viewing organisations as an integrated system. This, according to Kaplan and Norton (1992) transcends traditional notions about functional barriers and ultimately leads to improved decision making and problem solving.

6.3.5.2. Economic value added (EVA)

EVA is a measure of corporate performance that differs from most others by including a charge against profit for the cost of all the capital a company employs (Milbourn, 2001:505). It is calculated as follows:

$$EVA = NOPAT - C\%(TC)$$

- NOPAT – net operating profit after taxes
- C% - percentage cost of capital
- TC – Total capital

Ehrbar (1998:5) defines EVA as a fundamental way of measuring and managing corporate performance. It is:

- The corporate performance measure that is tied most directly to the creation of wealth;
- The framework underlying a comprehensive new system of corporate financial management that guides decisions making;
- A framework that can be used to communicate organisational goals and achievements; and
- An internal system of corporate governance that create an environment of co-operation and best performance.

6.3.5.3. Triple bottom line

There is also a growing recognition that companies are answerable and accountable to various communities, not least of which are its shareholders and employees. A consensus based approach to stakeholders relations, rather than the traditionally adversarial one, takes account of current thinking on the symbiotic relationship between companies and their stakeholders (Naidoo, 2004).

Triple bottom-line reporting is a path which points to practical benefits for companies themselves as well as their varied stakeholders. According to Elkington (1997) the underlying principles and issues may be described as follows:
"Sustainable development is a concept with which many people identify and sympathise, but if it is to become a global reality rather than remain a seductive mirage, governments, communities, companies and individuals must work together to improve their performance. The sustainability agenda, long understood as an attempt to harmonise the traditional financial bottom line with emerging thinking about the environmental bottom line, is turning out to be much more complicated than some early business enthusiasts imagined. Increasingly, we think in terms of a 'triple bottom line', focusing on economic prosperity, environmental quality, and - the element which business has tended to overlook - social justice."

It is clear from the above that there is an increasing demand on corporations to disclose information which integrates financial, environmental and social reporting. It is very likely that this will form a fundamental aspect of the work of leader which will be discussed in detail in Chapter 5. It will be required of leadership to guide organisations in the direction of corporate citizenship, which is defined by the Centre for Corporate Citizenship Boston College as "the business strategy that shapes the values underpinning a company's mission and the choices made each day by its executives, managers and employees as they engage with society". (www.bcccc.net).

This also links with the argument on leadership and complexity (section 6.4.6) and governance (section 6.4.7.) where a leader's work is to align the interests of individuals, corporations and society. This from a complexity point of view is associated with Level VI and VII work (Stamp, 1991). Stamp's Levels of Work Theory is discussed on page 90.

6.3.6. Leadership

As organisations within which leaders have to operate change, so the nature of leadership and the work of the leader must change as well (Holburn, 2003:16). Most scholars gauge the effectiveness of leadership almost exclusively through a lens of economic performance, specifically return on investment (Podolny, Khurana & Hill-Popper, 2005). Podolny et.al (2005) argue that the focus on economic results usually gives a one-sided picture of what leaders can accomplish.

Viewing the world of work from a systems perspective (as discussed in the previous chapter) would require of leaders to:

- Perceive and understand the containing whole which is producing a particular state of affairs (environment) within which an organisation functions;
- Identify the purpose of the particular system and its interrelated sub-systems;
- Think in terms of process which refers to understanding how results are produced within a system; and

- Think in terms of governance which means understanding how the integrity of a particular system is maintained.

In Chapter 2 it was argued that one of the key future challenges of organisations is to be sustainable. Despite the above-mentioned argument it can be accepted that one of the key components of the work of leadership in organisations is to ensure profitability and the sustainability of the organisations. Filho (2000:9-10) defines the concept of sustainability from four perspectives as follows.

Table 14: Four perspectives on sustainability

Perspective	Definition
Country and local policies	The systematic long-term use of natural resources so that these are available for future generations
Country policies	The modality of development that enables countries to progress, economically and socially, without destroying the environmental resources
Social impact of development	Development which is socially just, ethically acceptable, morally fair and economically sound
Economic growth	Development where environmental indicators are as important as economic indicators

From a business perspective, the notion of sustainability should clearly include a combination of these perspectives and it is the responsibility of leadership to ensure the sustainability of organisations. Veldsman (2000:76-78) depicts six more major challenges associated with a post-modern world from a qualitative perspective.

These challenges do not exist or function in isolation, but influence and reinforce each other. These challenges also emerge within wider or narrower boundaries: the wider the boundary the more difficult the leadership act. These challenges include:

- Rapid, radical, unpredictable and continuous **change**;
- Exploding **variety** in terms of beliefs, values, approaches, means and products/ services;
- Widespread **ambiguity** around frames of reference, belief and meaning systems;

- Increasing **complexity** in the scope and range of systems, structures, processes, technologies and interactions;
- Growing **interdependency** of systems, structures, processes, relationships, people and products/ services; and
- Widening **seamlessness** in terms of interaction and movement of people, information and products/ services (Veldsman, 2000:76-78).

Various authors view the work of leaders from different perspectives. Tichy and Devanna (1990) argue that leaders need to recognise the need for revitalisation, create a vision and institutionalise change. Fairholm and Fairholm (2000:103) suggest that leadership is the task of building collaborative teams, of teaching a common vision and organisation principles, and instilling and encouraging trust. For the well-being of business and society, leadership should also focus on leaders' ability to forge new meaning and purpose for an organisation and its employees (Podolny et al., 2005).

Kotter (1999) defines the work of the leader as follows:

- The function of leadership is to produce change, therefore setting the direction of that change is fundamental to leadership;
- Aligning people towards the direction or vision; and
- Since change is the function of leadership, being able to generate highly energised behaviour is important for coping with the inevitable barriers to change. Good leaders create an environment to motivate people in a variety of ways. Just as direction setting identifies an appropriate path for movement, and as effective alignment gets people moving down that path, successful motivation ensures that they will have the energy to overcome obstacles.

Linking onto the change theme Crom and Bertels (1999:164) suggest that the work of leadership is about:

- Developing leadership talent at all levels of the organisation;
- Accelerating organisational learning, including cross-cultural /functional/ business learning; and

- Encouraging a results orientation, including providing a vehicle for results replication.

Rausch (1999:172) suggests that the work of leaders is to align three aspects, these being:

- The control requirements of the organisation, including the attitudes of employees with regard to the methods used to achieve and exercise such control;
- The competence requirements of the organisation, including the knowledge, skills and abilities of stakeholders; and
- The climate of the organisation, including the tangible and psychological needs of employees.

The more recent work of Kouzes and Pozner (2002:17-32) suggest that the work of exemplary leadership is about:

- Modelling the way;
- Inspiring a shared vision;
- Challenging the process;
- Enable others to act; and
- Encouraging the heart.

Holmberg and Ridderstråle (2002:33-44) confirm the thinking of the above-mentioned researchers by stating that leaders are the creators of chaos just as much as originators of order and it is the responsibility of leadership to develop all the instruments to realise the full potential of the organisation.

In conclusion, the following themes can be identified that describe the work of leaders within a business context:

- Ensure sustainability (results) through the achievement of the organisation's vision and execution of its strategy;
- Encourage change: create chaos;
- Integrate resources and systems while aligning people towards the vision; and
- Develop the competence requirements of the organisation and employees.

This conclusion also links with the Stratified Systems Theory discussed in section 4.4. that argues that the level of task complexity increases at the different organisational levels. A case has been made that the future organisation can be viewed as a complex adaptive social system. Taking this into account as well as the above-mentioned research, it can be concluded that the work of the future business leader is to:

- Design and develop the purpose (or function, role) that the organisation as a complex adaptive social system and/or subsystem fulfils, as measured by the implementation of its vision, mission and related strategy;
- Perceive and understand the system (organisation) as a whole which is "producing" a particular state within which the organisation and its subsystems function - realising that a change in one area of the system will have an immediate effect on the rest of the system. Making sense of what is currently happening; by thinking in terms of process which refers to making sense of how results (order, chaos, complexity and paradoxes) are "produced" within the system and its sub-systems; and
- Think in terms of the governance which means how the integrity of a particular system is maintained in order to ensure the survival of the system.

This brings the question to mind "What are the competencies of leaders being able to fulfil the work requirements?" Veldsman (2000:78) suggests that leadership needs to suit the necessary levels of difficulty. Therefore, before attempting to answer the question on competencies in Chapter 6 the impact of complexity on leadership needs to be explored first.

Research does show an interest in the possibility of different leadership requirements by level. The embodiment of such work was the systems model developed by Katz and Kahn (1966). This argument is further supported by Yukl (2002) who argues that leadership styles are also influenced by the organisational hierarchy resulting in job requirement differences across levels.

Jaques (1976, 1989) built on many of the ideas set forth in Katz and Kahn (1966) and developed the stratified-systems theory (SST). Essentially, SST suggests a

general model of organisational functioning such that there are increasingly complex critical tasks or requirements at each successive organisational level, and that effective leaders address these tasks. The increasing task complexity is a function of the uncertainties created by the necessity to deal with a more encompassing and turbulent environment as a leader moves up the hierarchy Jaques (1976, 1989). Jaques (1989) asserts that higher-level leaders themselves must possess higher levels of cognitive complexity to deal with the increasingly more demanding critical tasks as they move up the organisational hierarchy.

Ashby's (1952) law of requisite variety argues that complexity in the leader must be consistent with that in the organisation, while Oshagbemi & Gill (2004:4) argue that satisfaction with a leadership style at one level does not necessarily transfer to the level above or the level below. This is consistent with the SST perspective that also argues that as the task (work of the leader) becomes more complex, so must the leader's cognitive complexity be developed.

Stamp (1991) extended on the SST and identified seven levels of work complexity, called the Matrix of work. The following is a brief summary of the Matrix of work:

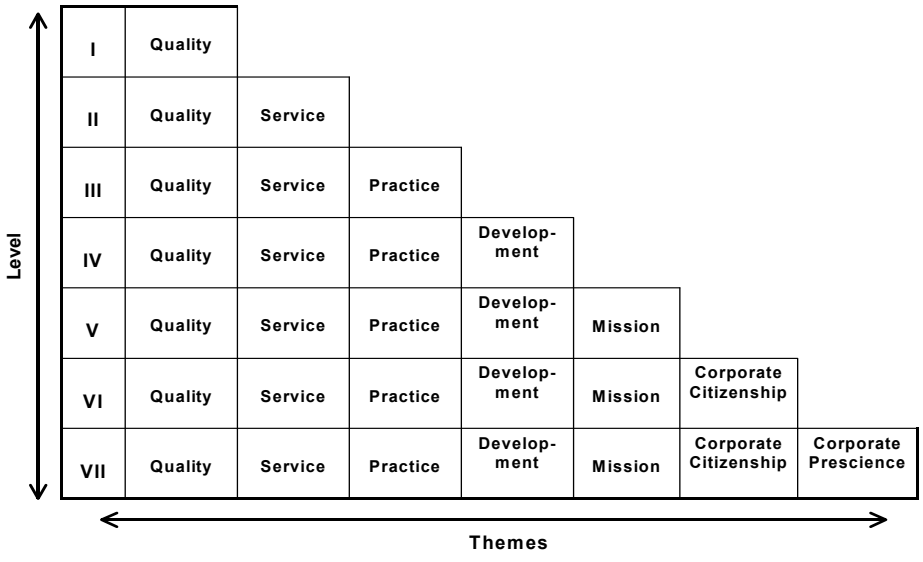


Figure 11: Matrix of work

The Matrix of work is translated into levels of capability. Stamp (1991) explains that as capability extends to engage with wider contexts, earlier levels are not left behind, but built in as part of the next level.

The following is a brief summary of the Matrix of capability:

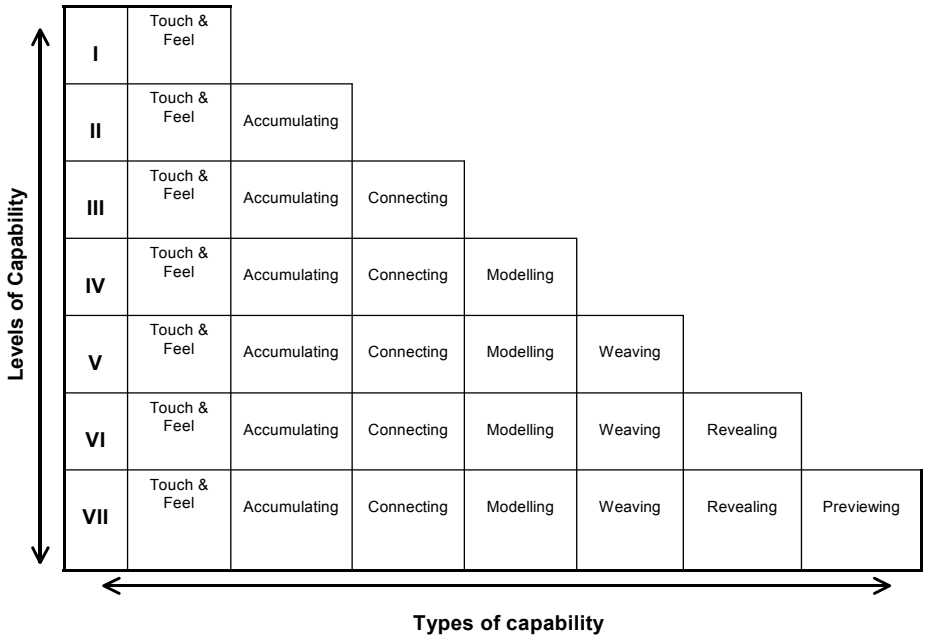


Figure 12: Matrix of capability

Olivier (2003:32-40) combined the different levels into what he calls work domains. The first domain – the Added Value Domain and its three levels of work complexity (quality, service and practice) are largely concerned with operational excellence. The second domain – the Innovative Domain (strategic development and strategic intent) represents a different type of work from both quantitative and qualitative perspectives. It is concerned with the strategic contribution and creating sustainable competitive advantage.

The third domain, the Values Domain (corporate citizenship and corporate prescience) focuses on global issues that often guide economic, social, national and hence business policy. This is the world where multinational companies attempt to operate and due to the complexity of this level resulted in only a limited number of truly global corporations (Olivier, 2003:32-40).

These levels of work complexity can also be described according to themes of work complexity (Olivier, 2003:32). The dominant themes are outlined in the table below.

Table 15: Complexity and organisational work themes

Organisational work themes	Level of competency	Time span
Quality (stratum I)	Competent "hands-on skills" to complete a task or activity	1 day to 3 months
Service (stratum II)	Competent in supporting and co-ordinating workers to achieve set standards	3 months to 1 year
Practice (stratum III)	Competent in constructing, connecting and fine-tuning systems to optimal utilisation of resources	1 year to 2 years
Strategic development (stratum IV)	Competent in integrating new futures, new services and products including positioning the organisation within the market context	2 years to 5 years
Strategic intent (stratum V)	Competent in a unified work system by understanding the organisation's purpose	5 years to 10 years

From this table it is once again clear that complexity increases per stratum as well as the associated time span. Based on the concept of different levels of complexity Drotter and Charan (2001) developed a leadership pipeline that they argue to be six passages or major events in the life of a leader. Grasping what each passage entails and the challenges involved in making each transition will enable organisations to respond to changes and threats in the business environment. The pipeline also links different skills to the different passages. Passage one is for example concerned with self leadership where passage six is more concerned with values than skills.

Drotter and Charan (2001:25) further argue that leaders that have skipped one or more passages can diminish the performance of direct reports and individuals all the way down the line. This clearly indicates a logical flow between the different levels of work or passages.

6.3.7. Governance

The concept of corporate governance has become increasingly important over the last decade. Legally and philosophically it is no longer acceptable for businesses to concentrate only on generating returns. Companies are now also expected to act as **"**good corporate citizens". In addition to generating financial returns, how such returns are generated and the direct and indirect effects of doing business inside and outside the company are now ranked alongside financial performance. Arguably, due to their visibility and impact on others, companies are required to adhere to higher standards of ethical practice (control of accountability, responsibility and authority) and create a sense of trust to remain competitive in this age of change (Naidoo, 2002; Sifonis & Goldberg; 1996).

There are a number of definitions of corporate governance, the most important of which are outlined here. Naidoo (2002:1) provides a succinct starting point for defining corporate governance: "Corporate Governance is…the practice by which companies are managed and controlled."

A broader definition of corporate governance is found in the King II Report (King, 2002: 5): "[Corporate governance is]…a participative… system of enterprise with integrity…in the interests of a wide range of stakeholders having regard to the fundamental principles of good financial, social, ethical and environmental practice"

Sir Adrian Cadbury (1999), the father of corporate governance in the United Kingdom, extends this concept in a report on corporate governance for the World Bank: "Corporate Governance is concerned with holding the balance between economic and social goals and between individual and communal goals. The governance framework is there to encourage the efficient use of resources and equally to require accountability for the stewardship of those resources. The aim is to align as nearly as possible the interests of individuals, corporations and society".

The future world of work, and especially organisations, would most probably be required to adhere to the following requirements of good governance as set out by King (2002):

- Aligning a company's operations with the prevailing philosophical, socio-political, legal and commercial context within which it operates;
- Developing ethical frameworks that guide how directors, managers and staff conduct a company's affairs, and that continually build the ethical base of individuals responsible for fulfilling corporate responsibilities;
- Understanding and meeting or bettering the legal roles, obligations and responsibilities of directors and managers in ensuring well-run companies;
- Ensuring compliance with the letter and spirit of organisational structures, their composition and functions that are required of companies in order to give them the best chance of complying with good governance practices; and
- Working towards 'good corporate citizenship' by doing business in a responsible and sufficiently open manner that ensures a balance between maximum profits, positive social, economic and environmental benefits and minimised negative impacts for all direct and indirect stakeholders. This includes the need for recording, compiling and reporting on the 'triple bottom line' of environmental, social and economic performance.

According to Simms (2003:20), there is a need to redefine the somewhat blurred boundaries between the roles of government, the voluntary sector and business. But, notwithstanding this, businesses do need to find a dual commercial and social purpose, once again linking to the purpose and vision of organisations as discussed in section 6.1.1.

6.4. Work situation of the future

The preceding section discussed the characteristics of the future organisation while this section will focus on the work situation of the future discussed according to the framework set out in Figure 10, p 78. Even though interlinked these two concepts are discussed separately due to the theory that the future concept may not necessarily entail an organisation.

6.4.1. Meaning of work

Already in the late 1970's Katzell (1979:35-57) argued that a trend would emerge for people to emphasise intrinsic factors (meaningfulness and challenge) rather than extrinsic (comfort and security) in their work. He outlines what he saw to be six broad trends:

- The traditional economic significance of work would be supplemented by a rising concern with its psychological quality and social meaningfulness;
- More workers at all level will want a stronger voice in decisions affecting their jobs and to be less subject to hierarchical control;
- A shrinking proportion of the workforce will be content to have routine, unchallenging jobs;
- More people will think in terms of long-range careers and even multiple careers, not just in terms of immediate jobs;
- The importance of non-work (family, community, retirement and leisure) will increasingly rival that of work; and
- The workforce will exhibit a wider diversity of attitudes towards work, portending numerous departures from the foregoing.

In the late 1980's research on work-family conflict and stress challenged the workplace to change in order to take into account employees' non-work demands and to address quality of life issues (Lewis & Cooper, 1987; Frone, Yardley & Markel), yet in 1994 only one in four workers was extremely satisfied with their work compared to forty percent in 1973 (Fairholm, 1996).

Fairholm (1996) states that work has become the centrepiece of peoples' lives - work is the place where people find their sense of full meaning. According to Renesch (2000) more than 40 million people in the United States are seeking a more "intrinsically valued" lifestyle and the numbers are growing. While work is critical to economic well-being, these numbers suggest that it is not meeting the needs of human beings.

In 1992 the Business Council of Australia, the Justice Peace and Creation Commission and more than thirty other organisations and individuals contributed

to a year long research project entitled: “Australians at Work in 2020 (AAW).” The project began as an attempt to codify and compare the forecasted or expected futures predicted by participating organisations. The following is a summary of the key findings of the project:

- Currently people are experiencing a deep-seated dissatisfaction with work. Work is unsatisfying and often demeaning. Similarly, many do meaningful and valuable work, which is simply not recognised or valued;
- There’s a difference between work (labour which gives meaning to one’s life) and employment (labour which earns income). Many who work in employment, which is not critical to their sense of identity, define themselves more by their work and less by their employment;
- The way people work is more diverse than it has ever been and these differences are respected as acts of personal choice. Work will mean something to which every adult can and will aspire, for the whole of their adult life;
- Work will mean something very different in 2020. In fact, the word “work” has been so marginalised that the word may not exist in 2020; and
- Children will most probably begin to “work” at a very early age and retirement, as it is currently known, will no longer exist.

A close observation of life in organisations detects a sort of “revolt against” what is seen as the technocratic, strategically bureaucratic organisation and the exclusive scientific humanism that are typically considered hegemonic. What is emerging are activities often described as “New Age” explorations that includes interest in Eastern and pagan culture, religion and spirituality (Casey, 2002:144-5).

In Chapter 2 it was concluded that a hunger for a common understanding of global ethics is emerging. This is also applicable to organisations where a stronger concern for integrity is emerging, and the setting of more realistic, more conservative goals within organisations. Van Breda (1993:40) supports this statement by stating that the debate between values and prices is an old one, but there is a definite emergence of a new consciousness. This at times might seem frightening to business and it calls for the creation of an “awareness” among

individuals that they are members of a community that stretches across the globe. “We aim to help people become more human through daily work” (Bader, 1993:42).

Handy (1997:179) suggests that democracy as a philosophical principle is the driving force "... that organisations must now come to terms with as their individuals begin to expect from their work communities the same collection of freedoms, rights and responsibilities that they have in the wider society. People are property no more."

6.4.2. New employee contract – contingent employment

In Chapter 2 section 4.4. and section 4.3. of this chapter, contingency theory was defined as a rejection of the “one best for all” approach. The nature of the flexible work place is influenced by internal and external variables and will continuously evolve and adapt.

Contingent employment or contingent work contracts have become a label for employment relations which fit the lexicon of the future workology (Matusik & Hill, 1998 and Treu 1992). Feldman (1995:121-41) states that the term “contingent” refers to employment arrangements which operate on a “conditional” or “as needed” basis. Most of the literature on the topic of contingent work focuses on organisational motivations and environmental influences like technology which have contributed to the growth of contingent work arrangements. Delsen (1999:99-114) refers to contingent contract arrangements as a form of “new job” creation; Sparrow (1998:79-95) focuses on contingent work as an ability of the organisation to “manage” the size of its workforce in order to quickly adjust to cyclical variations within the market place and Nishikawa (2000), as quoted by Gallagher (2002:121) suggests that organisations are most likely to utilise contingent work in instances of requiring specific technical skills.

Armstrong-Stassen (1998:108-23) has focused on five developments of work called "alternative work arrangements". For each form she examines the definition

and form of these alternative arrangements, their prevalence and predicted future status (exclusively in Canada) and the challenges they provide:

- **Part-time employment**, defined as working less than 30 hours per week. These jobs can be very varied and distinguished as permanent vs. casual, good vs. bad, voluntary vs. involuntary. Nearly one quarter of jobs in Canada fell into this category. They clearly provide real challenges, which include establishing policies, practices and procedures for part-timers with their preferred work status if possible; promoting part-time work as a legitimate alternative to full-time work; and promoting part-time work for older workers;

- **Contingent employment**, defined as when an individual is working for an organization but is not considered a regular employee. These include temporary, casual and technical contingent workers. For Amstrong-Stassen (1998) there are three specific challenges for this group: first, designing new ways of managing and motivating contingent workers; next, providing equitable treatment of contingent-workers; and finally, protecting their interests;

- **Flextime**, defined as when employees vary their starting and quitting times but are required to work a standard number of hours within a specific time period. Challenges noted include establishing a selection and eligibility criteria and successful implementation procedures; promoting the use of flextime; and ensuring its compatibility with other organisation initiatives;

- **Compressed work weeks**, defined as re-allocating the work time by condensing the total hours in the traditional five-day work week into fewer days. This is popular though its effects on productivity unknown. Four challenges are specified: identifying jobs that are appropriate for compressed work weeks; identifying which compressed work week form is best; preparing employees for compressed work weeks and preparing managers and supervisors to manage these workers; and

- **Teleworking**, defined as working at a location away from the traditional place of work, full- or part-time and involving the use of telecommunications and the

electronic processing of information. Again four challenges of this working type are identified: ensuring a supportive environment; identifying jobs that are appropriate for teleworking; establishing selection procedures and eligibility criteria; and training both telemanagers and teleworkers.

Lee, Hourquet and Macdermid (2002:154) conclude that what is likely to be found more frequently in the future workplace is more customised work arrangements, and work arrangements that are constantly in flux and changing according to individual and business needs.

McCarthy and Hall (2000) identify some problems and issues with the future employment contract. These include a growing gap between those having the resources (education, self-confidence and ability to learn) and those that don't coupled by increasingly complicated work and life balance issues.

6.4.3. Characteristics of the "worker"

The new world of work is also characterised by increasing diversity among employees. Burke and Cooper (2003) highlight that the dimensions among which employees may differ include gender, age, marital status, parental status, race ethnicity, education, sexual orientation, job tenure experience and physical disability, creating a sense that diversity has both potential benefits as well as disadvantages.

Strauss and Howe (1991) introduced the concept of generational theory by arguing that American history can be viewed through the framework of a repeating cycle of attitudes and approaches to life. The cycle, as they proposed, consists of four parts, each roughly twenty years in duration. They traced the cycle from the first American settlers from Europe to the present day and then went further to make predictions about the future right up to 2069.

Strauss and Howe (1991) used the concept of "cohorts" to explain that people from the same generation will share similarities in terms of their worldviews and

attitude, mainly due to shared life experiences at comparable ages. They identified four main generational cohorts, namely the Silent Generation, the Baby Boomers, Generation X and the Millennium Generation, also known as Generation Y.

Zemke, Raines and Filipczak (2000) applied this theory to the world of work and argue that this leads to diversity in the workplace. There is a growing realisation that the gulf of misunderstanding and resentment between older, not so old and younger employees in the workplace is growing and problematic (Zemke, et al., 2000:1).

The following table provides a summary of Zemke et al. (2000:24-170) work, in terms of their classification of the generations, as well as, the early influences on the four generations and the common work ethic:

Table 16: **Generations Theory**

Popular names Generation	**The Veterans**	**The Baby Boomers**	**Generation Xers**	**The Nexters**
Also known as…	• Traditionalists • WWI II Generation • Silent Generation	• Boomers	• Xers • Twenty-somethings • Baby Buster	• Generation Y • Millennials • Internet generation
Birth years	1922-1943	1943-1960	1960-1980	1980-2000
South African birth years (Codrington 1998)	1924-1944	1945-1970	1970-1990	1990-2000
Defining events and trends	• Patriotism • Families • The Great Depression • WW II • New deal • Korean War • Golden age of Radio • Silver screen • Rise of labour unions	• Prosperity • Children in the spotlight • Television • Suburbia • Assassinations • Vietnam • Civil rights movement • Cold war • Women's liberation • The space race	• Watergate, Nixon resigns • Stagflation • Single-parent homes • MTV/ computers • AIDS • Challenger disaster • Fall of Berlin wall • Wall street frenzy • Persian Gulf • Glasnost, Perestroika	• Computers • Schoolyard violence • Oklahoma City bombing • TV talk shows • Multiculturalism • Reality TV
Personality	• Consistency & uniformity • Likes things on a grand scale • Are conformers • Believes in logic, not magic • Are disciplined and conservative	• Believe in growth and expansion • Think of themselves as stars of the show • Optimistic • Personal gratification • Team orientation • Involvement	• Are self-reliant • Seeking a sense of family • Want balance • Non-traditional orientation about time and space • Like informality, casual approach towards authority • Attracted to the edge • Technologically savvy	• Optimism • Civic duty • Confidence • Diversity • Morality • Street smarts • Achievement • Spend your parents money as fast as you can

Popular names Generation	**The Veterans**	**The Baby Boomers**	**Generation Xers**	**The Nexters**
In the work place	• Stable, thorough • Detail orientated • Loyal, hard working • Inept with ambiguity and change • Reluctant to buck the system • Uncomfortable with conflict • Reticent when they disagree	• Service orientated • Driven • Willing to “go the extra mile” • Good at relationships • Want to please • Good team players • Uncomfortable with conflict • May put process ahead of results • Judgemental of those who see things differently • Self-centred • Overly sensitive to feedback	• Adaptable • Technoliterate • Independent • Unintimidated by authority • Creative • Impatient • Poor people skills • Inexperienced • Cynical	• Collective action • Optimism • Tenacity • Heroic spirit • Multitasking capabilities • Technologically savvy • Need for supervision and structure • Inexperience, especially with handling difficult people issues
World view				
Outlook	Practical	Optimistic	Sceptical	Hopeful
Work ethic	Dedicated	Driven	Balanced	Determined
View of authority	Respectful	Love/ hate	Unimpressed	Polite
Leadership by	Hierarchy	Consensus	Competence	Pulling together
Relationships	Personal sacrifice	Personal gratification	Reluctant to commit	Inclusive
Turnoffs	Vulgarity	Political incorrectness	Cliché, hype	Promiscuity

From this table it can be seen that older, not so old and younger employees not only differ in world views but also differ radically in aspects like work ethic, reward and leadership approaches. Zemke et al. (2000:24-170) propose that mixed generations can work well together if communication of issues across generational groups is encouraged and supported, along with much needed listening and there is use of diverse employees to strategically strengthen work units/ departments.

6.4.4. Impact of Technology, Information and Communication

From the discussions in Chapter 2 it is clear that technology has grown very fast over the past 200 years. Guptara (2005:107-115) introduces a simple 5-Way Model which helps to explain the five different ways in which technology is currently and will in the future impact on the world of work:

- Technology **automates** existing processes, abolishing whole classes of occupation;
- Technology **builds bridges** between parts of a corporation that had little to do with each other;
- Technology **cancels** traditional divisions and **creates** entirely new ways of organising companies;
- Technology increasingly **destroys** the walls between an organisation's internal divisions; and
- Technology **eliminates** the boundaries between industries.

The theme of knowledge management becomes particularly relevant within the context of technology, information and communication in the organisation. What is happening is that information technology is opening the door for organisations to respond quicker to external challenges.

This is supported by Senge (1990) who claimed that future successful organisations will be those that discovered how to tap into their people's commitment and capacity to learn at every level in the company, and use this accumulated knowledge for value creation. Karp (2003) argues that intellectual assets have always existed in organisations from the dawn of civilisation. What is

new and has been driving the recent surge in intellectual capital has mainly been the combination of the following trends:

- An intensified business competition mainly due to globalisation of trade and deregulation of important sectors; and
- The advancement of information technologies, which opened up the way for new business models, new forms of organisations, other types of value chains and value creation to be developed.

In the previous chapter (section 6) the main impact of technology was identified as the speed of communication that will bring along the following challenges for the future world of work:

- Information intensity; knowledge will become a key component of organisational capital;
- Changes in the way people think and act – information will lead to better educated people;
- Slandering of organisational reputations, a new kind of "internet" terrorism is bound to be an increasing problem in the years to come; and
- The organisation with the "competitive edge" in future will be the organisation with access to information and the ability to act on it immediately. Technology will lead to intensification in choice of products and services available.

In section 6.4.3 of this chapter it was suggested that the future organisation will be more virtual in nature. To be viable, virtual organisations/ offices according to Cascio (2002:205) will require four types of information:

- Online material that can be downloaded and printed;
- Databases on products and customers that are accessible from remote locations;
- Well-indexed, automated central files that are accessible from remote locations; and
- A way to track the location of mobile workers.

In Chapter 2, section 6, the emergence of global crime syndicates aided and abetted by the use of sophisticated technology was identified as a future trend. For

the virtual organisation of the future it becomes more and more important to pay attention to security and the “safeguarding” of its knowledge/ information capital.

6.4.5. Customer relationships

“The internet will change the relationship between consumers and producers in a way more profound that you can yet imagine. The Internet is not just another marketing channel… The Internet is the foundation for a new industrial order. The Internet will empower consumers like nothing else ever has…” (Hamel & Sampler, 1998:80-81).

A fundamental aspect in terms of the relationship between organisations and customers is a shift in the balance of power. Organisations no longer have carte blanche to decide on product qualities, pricing strategies, distribution channels, and client support. Consumers increasingly demand involvement in one form or another in deciding on these issues. These statements will be discussed in detail in Chapter 5, section 3 on the changing consumer within the retail environment.

In Chapter 2 it was also identified that the changing consumer dynamics and market conditions implies that organisations will have to:

- cater for an elderly market (especially in Europe);
- take into account “female thinking”; and
- focus on physical and spiritual wellness

which may very well lead to completely different marketing strategies.

7. CONCLUSION

The speed and complexity of change in the world will also impact on the world of work as known today. In order to understand the organisational perspective and its futuristic challenges this chapter firstly explored the evolution of organisational theory. It was concluded that the traditional organisational theory that put forward the hierarchical system and bureaucratic approaches functioned well into the

1970's and 1980's, but it no longer addresses the rapid changes and complexity of the future world of work.

Today's organisations are no longer characterised by high volume production of goods and services at a central location. What is emerging more and more is a decentralised and networked organisation, focussing on specific customer needs. Modern organisations are likely to have "new" characteristics like networks, autonomy and fuzziness. In line with the thinking on the organisation of today contemporary organisation theory, unlike the more classical approaches, is not about the "one grand" theory, but in essence recognising that something which has provided value is not turned into something worthless by new thinking.

A conclusion was also reached that the work of the future business leader from a systems perspective is to:

- Design and develop the purpose (or function, role) that the organisation as a complex adaptive social system and/or subsystem fulfils as measured by the implementation of its vision, mission and related strategy;
- Perceive and understand the system (organisation) as a whole which is "producing" a particular state within which the organisation and its sub-systems functions - realising that a change in one area of the system will have an immediate effect on the rest of the system. Making sense of what is currently happening; by thinking in terms of process which refers to making sense of how results (order, chaos, complexity and paradoxes) are "produced" within the system and its subsystems; and
- Think in terms of the governance which means how the integrity of a particular system is maintained to ensure the survival of the system.

The chapter concluded with an exploration of the paradigm and supporting philosophies of the future organisation inclusive of thinking on leadership. A case has been made that the future organisation can be viewed as a complex adaptive social system. It now needs to be established if the futuristic model regarding the future world of work can be held true for the future world of retail. This will be explored in the next chapter.

CHAPTER 4 – THE FUTURE WORLD OF RETAIL

1. INTRODUCTION

In the previous chapters a case was made that the changing world has a fundamental impact on the world of work as it is currently known. This implies that the thinking and understanding of the world of work must also change. This chapter will aim to prove that the same argument can be held true for the future world of retail.

Retailing is an activity of enormous economic significance to most developed nations (McGoldrick, 2002:1). There are about 270 countries - with 6.5 million people and a $35 trillion economy in the world. The United States accounts for less than 5% of the world's population. However, they represent about 30% of the world-wide economy. Of this $35 trillion economy, annual world-wide retail sales have already reached $8 trillion and it is growing (Berman & Evans, 2004:70). This unfortunately, especially from a South African perspective, is an industry where limited and fragmented research is available despite the fact that retail is a significant player in the world economy.

The aim of this study is to validate the generic leadership meta-competence model that will be developed within the next chapter within the South African future world of retail. In order to do so this chapter will explore the world of retail by means of the following framework:

- Conceptualising the term retail;
- The evolution of retail;
- The current world of retail;
- Emerging trends and patterns that will influence the future world of retail; and
- The retail business leader.

In part this chapter also serves to integrate and document the relatively sparse literature available on the retail industry in South Africa.

2. INTRODUCTION TO THE WORLD OF RETAIL

In this section the term retail will be defined as well as a short overview on the classifications within retail. The section will conclude with a brief overview on the differences between structure of retailing and distribution channels in the global market.

2.1. Conceptualising retail

"Retailing is the set of business activities that adds value to the products and services sold to consumers for their personal or family use. It includes every sale to the final customer – ranging from cars to clothing, to meals at restaurants, to music concert tickets. Retailing is the last stage in the distribution process" (Levy & Weitz, 2004:6).

Three factors distinguish retailing from other types of business and each factor imposes unique requirements on retail firms (Berman & Evans, 2004:9-10):

- **Small average sale**: The average amount of a sales transaction for retailers is much less than for manufacturers - this amount is estimated at well under $100. This low purchase amount in turn demands tight control over the costs associated with each transaction, e.g., credit verification, sales personnel and bagging and maximisation of the number of customers drawn into the store.
- **Impulse purchase**: Recent surveys have shown that a large percentage of customers do not study advertisements before shopping, they do not prepare shopping lists, and make "fully unplanned purchases". This behaviour of consumers emphasises the importance of in-store displays, attractive store layouts, well organised stores and catalogues.
- **Popularity of stores**: Retail customers usually visit a store, despite the fact that mail, phone and Internet Web sales have increased. Despite the inroads made by the "point-and-click" retailers, most retail transactions are still – and will continue to be in the future – conducted inside the "brick-and-mortar" store. The reasons are because people like to shop in person, want to touch, smell and/or try on the merchandise, like to browse (also important for unplanned

purchases), and feel more comfortable taking a purchased item home, as compared to waiting for a delivery.

Four principles underpin the retailing concept, which are understood and applied by successful retailers throughout the world (Berman & Evans, 2004:13):

- **Customer orientation**: The retailer ascertains the attributes and needs of its customers and endeavours to satisfy these needs to the fullest;
- **Coordinated effort**: The retailer integrates all plans and activities to maximise efficiency;
- **Value-driven**: The retailer offers good value to customers, whether upscale or discount. This means having prices appropriate for the level of products and customer service; and
- **Goal orientation**: The retailer sets goals and then uses its strategy to attain them.

2.2. Classification of retail organisations

Kotler and Armstrong (2001:473-479) distinguish between two basic types of retailers, namely store retailers and non-store retailers. Three types of non-store retailing can be identified, namely direct marketing, direct selling and automatic vending. One or more of several characteristics could classify a store retailer. These characteristics (adapted from Kotler & Armstrong. 2001:473-479) are discussed below.

Table 17: Classification of Retailers

Service provided	Product line sold	Relative price emphasis	Control of outlets	Type of store cluster
Self-service	Speciality store	Discount store	Corporate chain	Central Business District
Limited service	Department store		Voluntary chain	Regional shopping centre
Full service	Supermarket Convenience store Superstore Hypermarket	Catalogue showroom	Franchise Retail conglomerate	Community shopping centre Neighbourhood shopping centre

From the table it can be seen that retailers are classified according to certain characteristics or variables. From a South African perspective these variables are seen as ownership, merchandise sold, location and market area, while retail stores are classified as Warehouse club; Department store; Mass merchandiser Speciality store; Supermarket; Convenience store; Discount store Off-price retailer; and Factory shop (Boshoff & Terblanche, 2003).

2.3. Differences between structure of retailing and distribution channels

The nature of retailing and distribution in the Unites States is very different to those in Europe and Japan (Levy & Weitz, 2001:10). The main differences are summarised in Table 18.

Table 18: Comparison of retailing and distribution channels

Characteristic	US	Europe			Japan
		North	South	Central	
Concentration (% of retail sales in category by top three firms)	High	High	Low	Very Low	Medium
Number of outlets per 1000 people	Medium	Medium	High	Low	High
Retail density (m^2 of retail space per person)	High	Medium	Low	Low	Medium
Store size (% of retail sales made in stores over 930 m^2 or 10 000 sq. ft.)	High	Medium	Low	Low	Low
Role of wholesaling (wholesale sales as a % of retail sales)	Low	Medium	Medium	High	High
Distribution inefficiency (average maintained mark-up – distribution costs as a % of retail price)	Low	Medium	High	High	High

According to Levy and Weitz (2001:10) the United States' distribution system is characterised by the greatest retail density with the greatest concentration of large retail firms: 10% of food and general merchandise retail firms in this country account for more than 40% of all retail sales. Furthermore, many United States retail firms are large enough to operate with their own warehouses, thereby

eliminating the need for a wholesale intermediary. The Japanese distribution system is characterised by small stores operated by relatively small firms and a large independent wholesale industry. Daily merchandise deliveries to these small retailers often pass through three distributors between the manufacturer and retailer.

The European distribution system falls somewhere between the United States and the Japanese system:

- Concentration levels are high in Northern Europe: In some national markets 80% or more of sales in a sector such as food or home improvements are accounted for by five (or fewer) firms;
- Retailing in all sectors is more fragmented in Southern Europe. Traditional farmers' markets are still important in some sectors and they operate alongside "big-box" formats; and
- The privatisation of retail trade in Central Europe has resulted in a shift from a previously highly concentrated structure to one of extreme fragmentation. This was accompanied by a significant increase in kiosk-based retailing, but a small overall increase in retail floor space (Levy & Weitz, 2001:10-11).

It is clear from the above that the nature of retailing and distribution are very different within the various countries, which implies that the future retail industry will also differ from country to country. For purposes of this chapter changes within the retail environment (discussed in section 4.1.) will be discussed more in generic terms and won't focus on changes specific to one country or retail industry.

3. EVOLUTION OF RETAIL

Tracing the 200 year old history of retailing will help to create an understanding of how retailing evolved into what it is today. This section will focus on the historical development of retailing within the United States and Europe and conclude with a specific focus on historical events that shaped the South African retail industry.

3.1. Trading posts and peddlers

From Chapter 2, section 2.1 it was seen that the Early Modern Period of human evolution was characterised by great inter-regional networks of trade with ocean travelling opening up the way for a fully global network. Retailing has its meagre beginning in the early fifteenth century at a trading post in North America based not on currency, but the exchange of goods, like food (Daimind & Pintel, 1996:4). As was true in Europe, in the earliest stages of retail development in the Unites States the peddler carried on his back the bare essentials to the outlying countryside. The peddler evolved through the stages of a horseback peddler, to a wagon peddler, able to carry lace, fine cloth and other non-essential notions (Bolen, 1982:7).

3.2. General store

The modern period of the world (as discussed in Chapter 2, section 2.2.) began in the 1780s with the first phase of the Industrial Revolution in Britain. The Industrial Revolution, characterised by mass production and the abundant availability of merchandise, also influenced the retail trade industry. In the mid-eighteenth century, as people gathered together in villages and towns, the first retail institution began to expand its operation to better serve the needs of American colonists. The general retail store that initially operated on a cash basis was born (Diamond & Pintel, 1996:4).

According to Bolen (1982:7) the general store also began a service that has become an essential part of almost all retailing today – the granting of credit to farmers during the year with repayment at harvest time. These stores to a certain extent played the role of a social centre with an atmosphere described by Chapman (1981:10) as “inviting and gossipy”.

Between 1850 and 1914, European industrialisation progressed with a growing array of social, cultural and economical effects (Chapter 2, section 2.2.). The improvement in living conditions lead to some general stores growing into department stores.

3.3. Department store

According to Bolin (1982:8) it is possible that the “invention” of the department store can be traced back to Aristide Boucicaut when he founded Bon Marché in Paris. At the end of the nineteenth century the department store, a departmentalised retail store carrying a wide variety of hard and soft goods, became popular throughout the United States. This institution differed from the general retail store in that it presented an orderly arrangement of many types of merchandise (Daimind & Pintel, 1996:5).

3.4. Chain store

In the middle of the nineteenth century the great variety of goods on offer necessitated the beginning of the specialisation in retail and the limited line store, which carried a variety of one classification of merchandise, was introduced. In the latter part of the nineteenth century the chain organisation, the first venture into large-scale retailing was introduced in the United States (Daimind & Pintel, 1996:4). The chain store today still plays a major role in the retail sector with giants like J.C. Penney, Sears Roebuck & Company and F.W. Woolworth Company (Chapman, 1981:11).

3.5. Supermarket

The Great Depression which can be dated from the collapse of the New York stock exchange (as discussed in Chapter 2, section 2.3.) led to supermarkets with large departmentalised department stores becoming popular in the late 1930’s. After beginning in the 1920’s in southern California, the supermarket reached the East Coast by the 1930’s (Bolan, 1982:11). In addition to the large variety of foodstuffs, the supermarket carries an abundance of miscellaneous items such as drugs, toys, clothes and hardware (Daimind & Pintel, 1996:5).

3.6. Discount store

The 1940s were a time for yet another retailing innovation. At the end of World War II, some retail stores that offered major brand items at prices below the

prevailing level opened (Bolan, 1982:12) Unlike the conventional retail store, the discounter offered limited service (utilising self-services) in exchange for lower prices (Daimind & Pintel, 1996:5).

3.7. Modern planned shopping centres

Throughout most of the 200 years of retail evolution and revolution customers went downtown for their shopping needs. In the 1960s the establishment of the suburban shopping centre made such trips unnecessary. These centres, still popular today, are usually located between communities so that they can attract customers from a larger geographic area (Bolan, 1982).

3.8. Other retailing institutions

In addition to the kinds of retailing institutions already discussed, Bolin (1982:13-14) identifies the following types and variations of the retail establishment that occurred through history:

- **Speciality store**: Centres its efforts on one merchandise line, like clothing or jewellery;
- **Hypermarket**: When a discount store, supermarket and speciality store are placed under one roof, the result is a hypermarket; and
- **Catalogue showroom**: Based on mail-order buying, the catalogue showroom allows the customer to “shop” the catalogue before coming to the store.

3.9. A South African Perspective

As mentioned earlier on literature on the South African retail industry is sparse and fragmented. This section attempts to integrated the literature and will the discuss the evolution of retail in South Africa according to the following framework:

- The start of retail;
- The era of sanctions and apartheid; and
- The era after the 1994 all-race election.

3.9.1. The start of the retail landscape

The earliest forms of retailing in South Africa commenced with the bartering that took place between the local tribes in the area. Three major trends influenced the evolution of retailing in South Africa:

- The landing of Jan van Riebeeck in 1652 under the command of the Dutch East India Company in the Cape, with the purpose of setting up a halfway station for ships on their way the east;
- The “Great Trek” of 1834 to the interior which led to the establishment of the peddler; and
- The discovery of diamonds (1860’s) and later gold (1886) lead to the establishment of the first formal retailers such as the general dealer (Strydom, 2004:8-9).

The discovery of gold on the Witwatersrand in 1886 was a turning point in South African history. Far more than diamonds, this changed South Africa from an agricultural society to become the largest gold-producer in the world (www.sahistory.org.za). European investment flowed in and by the end of the nineteenth century it was equivalent to all European investment in the rest of Africa. International banks and private lenders increased cash and credit available to local farmers, miners and prospectors, and they, in turn, placed growing demands for land and labour on the local South African population. South Africa was drawn into the international economy through its exports, primarily diamonds and gold, and through its own increasing demand for a variety of agricultural imports. The cycle of economic growth was stimulated by the continual expansion of the mining industry, and with newfound wealth, consumer demand fuelled higher levels of trade (South Africa Historical Developments).

3.9.2. Retail in the era of sanctions and apartheid

In 1920 The Black (Native) Affairs Act was passed. It paved the way for the creation of a countrywide system of tribally based, but government appointed, district councils modelled on the lines of the Glen Grey Act of 1894. The 1936

Representation of Natives Act extends the principal of separate, communally based political representation for Africans (South Africa Historical Developments).

During the 1920s, to encourage the fledgling manufacturing industries, the government established state corporations to provide inexpensive electricity and steel for industrial use, and it imposed import tariffs to protect local manufacturers. Again black entrepreneurs were discouraged and new laws limited the rights of black workers, creating a large pool of low-cost industrial labour. By the end of the 1930s, the growing number of state-owned enterprises dominated the manufacturing sector, and black entrepreneurs continued to be pressured to remain outside the formal economy trade (South Africa Historical Developments).

In 1948 a general election placed the National Party in power and it introduced its policy of apartheid within South Africa (South African History Online). Business areas, zoned for Whites only, meant that Blacks could not open up and trade in such areas. Various laws dictated where people could live, trade and socialise based on race and the Group Areas Act prevented Blacks and Whites from mixing and communicating normally outside the workplace (Denton & Vloeberghs, 2002: 85).

At its 17th session in 1962, the United Nations General Assembly adopted a resolution on South Africa's racial policies, deploring the failure of the South African government to abandon its racial policies and established a Special Committee to keep these under review. The resolution favoured diplomatic and economic sanctions against South Africa and asked that the UN Security Council consider expelling South Africa from the Council (South African History Online).

During the sanction years, South Africa was isolated and depended heavily on itself to provide for its own needs. Economic growth stemmed largely from government intervention and subsidies, creating huge organisations to ensure the economic survival of the country. Examples include Krygkor, Eskom, Iscor, Sasol, Telkom, Mossgas, Transnet (then Spoornet) and the SABC, to name a few. These monoliths were based on strong bureaucratic principles, ensuring that all of the

decision-making power and control remained firmly with the top echelon (Denton & Vloeberghs, 2002:84).

Smith (1982:12-13) as quoted by Cant and Brink (1998) conducted a study of the perception of the black retailer regarding business and came to the conclusion that black people associated free enterprise with apartheid and discrimination. The research also found the following evidence regarding the black retailer that can be found predominantly in the informal sector:

- **Location**: Retailers gave too much attention to personal preferences instead of sound business economic criteria in their location decisions. They tended to locate where their families and friends were living;
- **Organisation**: The majority of the retailers were sole proprietors that tended to centralise authority and responsibility in themselves;
- **Purchasing management**: Retailers bought small uneconomic quantities and no investigations into other sources were conducted;
- **Financial management**: In most cases no bookkeeping was done by the retailer and no financial records were kept; and
- **Marketing management**: Price was found to be one of the main selection criteria of the black consumer.

3.9.3. Retail after the 1994 all-race election

South Africa's first all-race election took place in April 1994. The African National Congress (ANC) won the election with the support of 62.6% of the electorate (Race Relations Survey 1994/1995:327). The emphasis of the government at that stage was on how government could play an enabling role to ensure widely spread management and ownership of business in South Africa and favourable treatment to be given to black-owned businesses and joint ventures (Hlongwane, 1994).

The historical events in South Africa had a significant impact on the evolution of its retail industry resulting in 'two economies' in one country. The first sector is advanced and skilled, becoming more globally competitive. The second is mainly informal, marginalised and unskilled. Despite the past scenario, the emergence of the "informal sector" or undeveloped economy in South Africa retailing, contributes

8-15 percent to the Gross Domestic Product (Strydom, 2004:27). A report compiled by Ligthelm (2004) on the characteristics of the informal retail sector, estimated the share of informal trade sector at approximately R32 billion in 2002. This represents approximately 10 percent of retail trade sales in South Africa.

Strydom (2004:27-29) describes the informal sector as follows:

- **Spaza stores**: These are run from private homes (bedrooms, converted garages, etc.). They specialise in the selling of basic commodities in the smallest units. Currently these stores are unlicensed and do not pay tax. Spaza shops number more than 66 000 in South Africa;
- **Hawking**: Many of the spaza stores have diversified and are operating as hawkers. It is one of the fastest growing sectors with more than 200 000 licensed hawkers trading in the metropolitan areas of South Africa. Operations of the hawkers varies from selling fruit and vegetable, flowers, food, jumble to liquor;
- **Taxi business**: Due to the unsophisticated transport system, black entrepreneurs started to invest in mini-buses to transport passengers from townships to the city and back. From this, the long-distance transport of passengers lowed, with thousands of new small businesses being created with taxi buses carrying millions of passengers per year.

Lighthelm (2004) found that the picture emerging from his research on the informal sector depicts a continuum of informal retailers ranging from fairly developed businesses to enterprises purely established for household survival purposes. This continuum of fairly established to survivalist businesses is clearly identifiable by the type of business. The following three types were identified in the study, namely township general dealers, spaza shops and hawkers. Township general dealers seem to be far more established than hawkers. Spaza shops occupy more or less a middle position.

The future of retail from a South African perspective will be discussed later in the Chapter under section 3.2.

3.10. Conclusion

Conceptually the history of retail can diagrammatically be represented as follows:

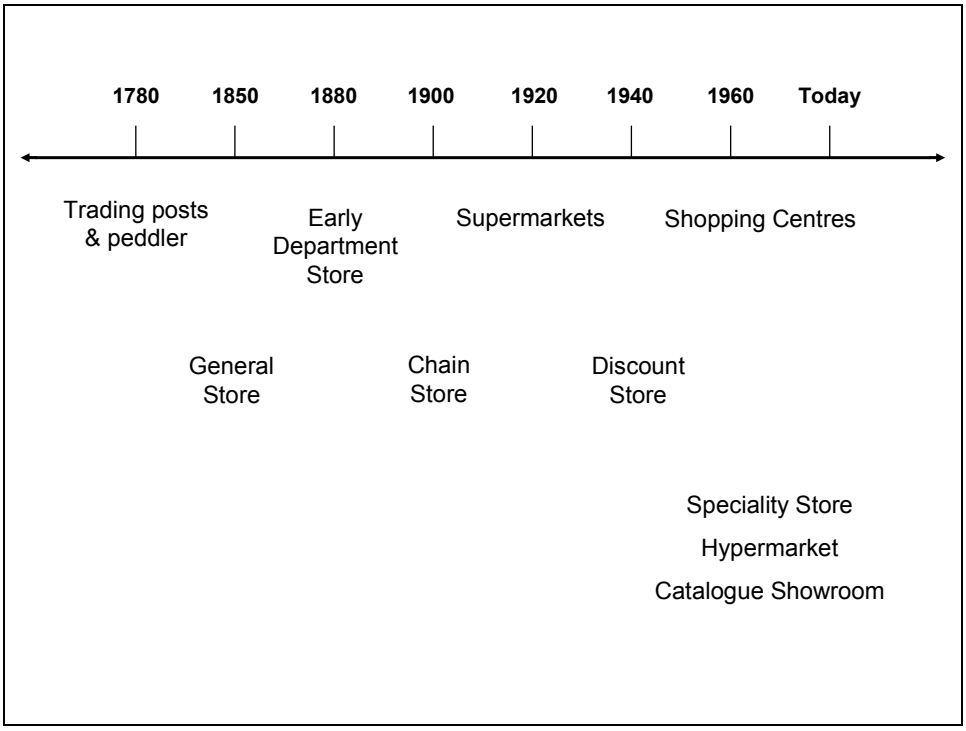


Figure 13: Evolution of retail

Retail has its humble beginnings from the often romanticised peddler and trading posts. Even though certain retail concepts like the chain store and supermarkets were established in the early 1900's they are still very relevant today.

Retail in South Africa also commenced with the trading post set-up by Jan van Riebeeck under the command of the Dutch East India Company. "The Great Trek" into the interior lead to the peddler providing the "Trekkers" with supplies and later the establishment of the general store.

Due to the past political scenario within South Africa retail evolved into a formal sector and an informal sector. The formal sector is characterised as in the rest of the western world by chain stores, supermarkets, hypermarkets etc. The difference is the establishment of very unique brand names like Pick 'n Pay. The informal sector is characterised by the spaza shop and street hawker.

The following section will explore the current world of retail focussing on aspects like conceptualising retail and the classification system within the retail environment. The aim is not to discuss the complexities of retail, but merely to provide an overview of key concepts within the European, American and Japanese retail world as obtained from the literature.

4. THE CURRENT AND FUTURE WORLD OF RETAIL

Even as recently as 1990, there were no retailers in the Fortune 500 list of largest global companies. Now there are over 50, and in 2002 Wal-Mart became the largest of all companies, judged by revenue (Reynolds & Cuthbertson, 2004). Despite the fact that the retail industry has become a significant player in the world economy, research on the future world of retail is limited and fragmented. Table 20 adapted from Berman and Evans, J.R. (2004:73) provides a comparison of retail sales for selected countries.

Table 19: A comparison of population, economic strength and retail sales

Country	2001 Population (millions)	2001 Population Density (per km^2)	2000 Per Capita GDP[1) 2)] (US$)	Annual GDP[1)] growth rate (%)	2000 Per Capita Retail Sales (US$)	2002 World Competitive-ness ranking[3)]
Brazil	174	20	6 500	4.2	555	8
Canada	32	3	22 800	4.3	4 278	2
China	1 273	134	3 600	8.0	307	10
France	60	108	24 400	3.1	4 833	5
Germany	83	234	23 400	3.0	5 448	3
Great Britain	60	244	22 800	3.0	5 268	4
India	1 030	337	2 200	6.0	220	12
Italy	58	195	22 100	2.7	4 484	9
Japan	127	336	24 900	1.3	8 578	6
Mexico	102	52	9 100	7.1	962	11
Russia	145	9	7 700	6.3	456	14
South Africa	44	36	8 500	3.0	580	13
South Korea	48	475	16 100	9.0	1 908	7
United States	278	30	36 200	5.0	8 135	1

Notes: 1) GDP is a country's gross domestic product.

2) Per capita GDP is expressed in terms of purchasing power parity.

3) World Competitiveness ranking is based on a country's economic performance, business efficiency, and infrastructure.

From the table it can be concluded that the world's 200 largest retailers generate in excess of $2 trillion in annual revenue. Japan has the highest per capita retail sales in the world, about $8 578 per year followed by the USA with retail sales per capita at $8 135 per year. Germany is in third position with retail sales per capita of $5,448 per year. This clearly makes retail a fundamental contributor to the world economy and worthwhile to study in order to ensure the future sustainable growth of the retail industry.

The rest of this section will focus on defining the concept of retail, refer to the classification of retailers and conclude with a comparison on the differences in the nature of retailing within Europe, Japan and the United States.

4.1. Changes within the retail environment

The changes as discussed in Chapter 2 (world changes) and Chapter 4 (world of work changes) are also evident in the world of retail. It can therefore be argued that the pace of change in retailing is also accelerating. Cox and Brittain (2000: 314) identify the key drivers of the changes as technology, increasing maturation and competition in the retail sector and the changes in social and cultural attitudes.

Newman and Cullen (2002:48-49) identify the following main changes within the retail industry in the United Kingdom as it occurred from the 1980s:

- The number of retail business and outlets has continued to decline, but there has been a corresponding increase in the size of outlets;
- Food retailing has passed from the small grocery shops, general co-operative stores and specialist food shops such as the butcher and green grocer, into the control of the supermarket chains;
- The large food retailers have been exploiting their role in time-saving one-stop shopping by extending their product range into clothing, housewares, routine consumer electrical and sports items. Alongside other retailers, they have also

been responding to the different pressures on consumer time by developing new convenience formats;
- As large retailers develop larger stores they moved increasingly to edge-of-town shopping centres;
- New technology has led to closer integration of the supply chain; and
- The dominance of the clothing market by old chains has been challenged by new retail formats that respond more closely to the different attitudes of a new generation.

These and a wide variety of other factors, including increasing consumer awareness, pressure from government, trade unions and investors, new legislation, developments in information and communication technologies, have forced many retailers to take an increasing and visible interest in the environmental, economic and social impact of their activities. The rest of this section will discuss the major changes within the retail world from a social, economical and technological perspective. The section will conclude with a discussion on changes within the world of retail itself, e.g. retail strategy, retail structure and life cycle.

4.1.1. Social Changes

Social changes in the world of retail will be discussed by focussing on the general population structure, household structure and most importantly the changing consumer. The section on the changing consumer will also encompass future consumer trends and behaviour.

4.1.1.1. Population structure

From a global perspective there have been two significant changes identified in the population structure (Chapter 2, section 5.1.):

- An increasing number of elderly people, as people have been living longer caused by increased standards of living and greater awareness of health issues; and
- An increasing average age of the population.

The ageing population will bring a different pattern of demands for goods and services. Newman and Cullen (2002:39) argue that older people have different domestic and leisure requirements from younger people. This is further coupled by longevity being associated with higher income which will change consumer spending patterns.

Despite this more European trend, research conducted by the Bureau for Economic Research (2003) shows that HIV/AIDS will have a considerable impact on businesses at the macro-economic level. The projected world-wide population growth will decline by nearly 20% by the year 2015 and as a result the total labour force will see a similar decline. From a South African perspective the HIV/AIDS epidemic could have a “devastating” impact on the retail industry as consumer spending patterns change in response to the impact of the disease (Van der Walt, 2002).

Van der Walt (2002) is further of the opinion that this will be accompanied by a fall in disposable income as employment levels drop and interest rates rise. Retailers will be competing for a smaller market with less money to spend and unfortunately the retail community prefers not to acknowledge the full extent of the problem and there is a general failure to change behaviour and recognise that each institution is as vulnerable as the next.

4.1.1.2. Household structure

Peters (2003:166-184), Newman and Cullen (2002:39-40) and Becker (1993) identified the following changes within consumer household structures:

- Large increase in one- and two-person households;
- Rising income per head has encouraged younger people to set-up home on their own or to co-habitate. This has driven the increase in do-it-yourself (DIY) and home improvements;
- Increase in economic security for women (median income between 1970 and 1998 rose by 63 percent within the States) means that they have become less inclined to marry or remain married and family sizes are becoming smaller; and

- Women dominate consumer spending, but marketing strategies still focus on male consumers.

Research reported by Raymond (1999:60-65) suggests that in America children play an important role in the retail market. Children may influence 17% of family spending on cars and vacations and as much as 80% on food purchases. This is further coupled with the fact that an estimated 13% of teens in the US have their own credit cards and another 13% of them have credit cards in their parent's names.

Changes are also occurring in the traditional black South African household, previously characterised by extended families. Addison (2002) determined that women head more than two million black households, as extended families decline and men become disassociated from the household budget.

4.1.1.3. The changing consumer

In their book, "Clicking. 16 Trends to future fit your life, your work, and your business" Popcorn and Marigold (1996:29-35) identify and discuss sixteen trends (which they define to be big and broad) that they believe will have a profound impact on consumers and the way business organisations interact with this important stakeholder group. The following table is a summary of these trends:

Table 20: Emerging future consumer trends

Trend Name	Trend Description
Cocooning	The stay-at-home trend, reflecting our strong desire to build soft and cosy nests in order to protect ourselves from the harsh, unpredictable realities of the outside world.
Clanning	The inclination to join up, belong to, hang out with groups of like kinds, providing a secure feeling that our own belief systems will somehow be validated by consensus.
Fantasy Adventure	As a break from modern tensions, we actively seek excitement in basically risk-free adventures, whether it be via travel, food, or Virtual Reality.
Pleasure Revenge	Consumers, tired of all the rules and regulations, want to cut loose and have secret bacchanals with a bevy of forbidden fruits.
Small	Stressed-out from ever-increasing expenses, consumers are finding ways to

Trend Name	Trend Description
Indulgences	reward themselves with affordable luxuries.
Anchoring	A new trend that tracks the recent phenomenon of reaching back to our spiritual roots, taking what was comforting from the past in order to be securely anchored in the future.
Ergonomics	In a direct reaction to the sterile computer era, we are looking for new ways to make more personal statements. Thus, businesses that market to the "I" and provide exceptional service should excel.
FemaleThink	A trend that reflects a new set of business and societal values, encouraging us to shift marketing consciousness from the traditional goal-oriented, hierarchical models to the more caring and sharing, familial ones.
Emancipation	A NewThink for men that goes beyond being "strictly business" and warmly embraces the freedom of being an individual.
99 Lives	A new look at the modern motto of "Too Fast a Pace, Too Little Time," which forces us all to assume multiple roles in order to cope with busy, high-tech lives.
Cashing Out	Working women and men, questioning the intrinsic value of a high-powered career, are opting for more fulfilment in a simpler way of living.
Being Alive	There's a growing awareness that a new concept of "wellness" can add generous years of good health, giving us an overall better quality to our lives.
Down-Aging	Nostalgia for a carefree childhood lets us introduce a new sense of lightness into our often-too-serious adult lives.
Vigilante Consumer	A scanning of the various ways the frustrated, often angry consumer can manipulate the marketplace through pressure, protest, and politics.
Icon Toppling	A new socioquake has transformed mainstream America and the world, forcing us to question and often reject our monuments of business/government, the long-accepted "pillars of society."
S.O.S. (Save Our Society)	In order to protect our endangered planet, we must rediscover a social conscience based on a necessary blend of ethics, passion, and compassion.

From the table it can be seen that the modern consumer wants a more individualistic approach coupled with a tendency to question the status quo.

In the more recent work of Wesely-Clough (2004) from Hallmark consumer trends for the future are defined as follows:

Table 21: Future consumer trends and patterns

LONGING FOR LEISURE: More Money, Less Time	Materialism, though still in full swing, is losing its momentum. As Americans spend more and more time working, they're spending less time living. The acquisition of status symbols, a bulging portfolio and all the personal perfection that money can buy has become a treadmill that many are jumping off because there is no time to enjoy those things – and they are exhausted.
MORPHING CULTURE: Forming New "Family"	Singles outnumber couples; legislators and courts are redefining "marriage"; oldsters are living together; long-time married people are getting divorced; legal "living" contracts are in the offing; serial monogamy is one by-product of longevity; older children living at home; more single mothers; acceptance of family planning via adoption, science or surrogates; friends are like family – or preferred over family. The desire for "home" continues, but what home is may change many times for individuals during their lives. Evident in a rapid evolution in the way families take shape and new communities take root and thrive, possibly resulting in dramatic effects on social, political, medical and economic infrastructures.
INCREASING OPTIMISM: Life is Good	Upswing in volunteerism, grassroots groups; nations realising significance of collaboration; agencies working together; neighbourhood improvement groups "taking back the streets;" euphoria at routing out the bad guys in business; belief that the good guys will "win the war". Emerging renewed sense of optimism to translate into choices impacting lifestyle as well, including automotive and product design, interiors and fashion. Look for an upbeat approach to colour and lively new colour combinations.
LUST FOR LUXURY: The Look of Luxe	Affordable luxury, pseudo luxury, the real thing – as long as it reflects opulence. Fashions designed to reveal and showcase newly enhanced body parts, body piercing, body sculpting are out there with no pretence at coyness.
WHATEVER WORKS: Get it Done	So many projects, responsibilities, "musts" and "shoulds" and not enough time have left people looking for shortcuts and options. Any products, services, advice that companies, individuals and service organisations can offer leisure-starved consumers will be a plus. Is "getting it done" the journey or the destination? Consumers will become more willing pay for home lawn care, robot vacuum cleaners, gourmet catering not only for events but also for daily meals, and services to videotape possessions, parties, life events, photos and scrapbooks. Auto repair and maintenance go to the home or workplace, facelifts during lunchtime, cell phones and computers in pockets, purses and cars to manage services. **Counter Trend: The Journey of Doing** Increasingly, people want to do for themselves, enjoy the process, bond with other do-it-yourselfers, become experts at changing the oil, edging the lawn, quilting a bed covering, hand-painting the walls, creating elaborate scrapbooks and making multiple copies. Evidence is everywhere – home sewing, crafting, home decorating, gourmet cooking, home depot classes on home repair and how-to books.

POLARISATION (strengthening trend): Like Minds Gather	Regardless of age, ethnicity or affiliation, individuals long for the security of alignment with those "like us." Ethnic "tribes" within countries and cities; elite social clubs; gatherings of loyal brand devotees, as well as group identities created via fashion, language or symbols. Increasing gravitation toward communities of like minds – people whose interests, world view or values reinforce our own. Concurrent with polarisation is movement toward joining together via increases in volunteerism, a desire to be at peace and at one, efforts toward global unification. If this trend continues and global "patriotism" transcends nationalism, history could reveal this unification to be the most significant development of the twenty first century, as some futurists have speculated.
SHOPPING ADDICTION: Consumer in the Driver's Seat	Retailers and consumers are engaged in a new kind of dance – and the consumer is leading. As the quest intensifies for the bargain, the deal, the best price, shopping has taken on the tone and activity of a hunt – catching the bird is more important than eating it. The sport of shopping appears to be an addiction as an over-retailed society continues to provide fertile ground for possession-heavy consumers. Discount stores abound as department and specialty stores offer more enticing twists to the dance – consumer rewards programs, special products, special promotions, new products (knowing they quickly will become knock-offs at rock-bottom prices). Consumers wait for high priced items to go on sale; resistance to paying "retail" or "list" for goods or services continues. The thrill of the hunt for many is the motivation.
TECHNOLOGY: Good Things for Tomorrow	Scientists are developing natural solutions through biomimicry (or natural alchemy). It is likely that the strategies will be applied in nature to solve sustainability problems that man has created. Creative innovation – in manufacturing, technology, medical science and more – to purify water, create new adhesives, develop new materials. Natural treatments will be used more and more to transform toxic waste material into clean water, aquaculture systems, gardens and food sources. Increasingly, science will repair the living world by applying natural principles – using the living world as the model for many diverse designs.
THE BELL BAROMETER: Shades of Sodom and Gomorrah to Rampaging Censors	From "in-your-face fashion" to overt violence and abuse in video games, movies, television and music to over-the-top "reality" TV to trafficking of pornography, people and illicit products form the left base of today's bell-shaped curve. Anchoring the other end of the bell-curve is censorship, rampant legislation, anti-groups and Web sites, vigilante efforts and seemingly endless restrictions. Lawsuits and lobbying keep the curve in tact as cultural desire for excitement keeps the left end of the curve on a downward press as the opposing end digs in its heels and burrows in. Moderation, tolerance, a let-it-be attitude, a return of ethical thinking, a penchant for doing the right thing as you see it, a live-and-let-live philosophy and a middle-of-the-road kind of fence-sitting and quasi acceptance of "today's world" – these and other "whatever" forces are pushing the middle of the bell-curve lower than customarily is seen on graphs.

From the table trend cycles seem to be emerging more rapidly as a result of technology, accelerated social diffusion, instantaneous communication and more willingness to accept – or inability to escape – “new ideas”.

Field (1998) identified the following characteristics of the new consumer:

- They no longer conform to traditional stereotypes – they are demanding, fickle, disloyal, individual and easily bored;
- They are better informed and more sophisticated;
- They have less time for shopping;
- They feel greater uncertainty about future personal prospects;
- They express a growing concern for the environment; and
- They have lost faith in traditional institutions such as the police, church and state.

Cap Gemini conducted research across Europe in 2002 to examine the forces driving shopping behaviour in order to better understand what consumers are looking for from their retail experiences. The key findings of their research are summarised below:

- **Human values have become the contemporary currency of commerce**. Consumers are “crying” out for honesty, respect, dignity, trust, consistency and fairness, and they will respond to companies that reflect these human values in their interactions with customers. The most important of the human values that consumers surveyed in the study look for from companies is honesty, followed by respect and reliability. This clearly links to the previous chapters where the is a growing tendency in the world and world of work towards human values like trust and integrity.

- **When it comes to the five attributes of a commercial transaction – price, product, service, access and experience – consumers and business are speaking two very different languages.** A chasm exists between what consumers are looking for from retailers and what companies are offering. Bridging this gap requires an understanding of the new language of consumers and the way in which they define the five retail attributes, as reflected in the

responses from European shoppers. In the case of price, for instance, “honest price” was clearly the most important factor and far outweighed “lowest price”.

With regard to product, more European shoppers cited “consistently good merchandise quality” as extremely important rather than “top-quality products”. Concerning service, the importance of follow through on the basics of customer service, such as return policies, was apparent in Europe.

When it came to access, European consumers made it clear that what goes on inside the store, such as cleanliness and ease of navigation, was more important than external aspects such as the location of the store or convenient parking. On the attribute of experience, European consumers were more concerned with being treated in a respectful and courteous manner than they were with being entertained in the store.

- **The majority of consumers are hard-pressed to identify favourite stores in many retail channels in the nine countries covered by the survey.** The lack of store brand loyalty was apparent even in frequently shopped channels such as supermarkets. In some countries, this was the result of a fragmented retail environment dominated by regional or local companies. In others, it reflected the weakness of an individual channel. But in some cases it is reflective of a certain apathy, even discontent, that exists among consumers regarding the store in which they shop. In addition, retailers in general, even many that were named as favourites, were not well differentiated in the minds of consumers.

From the above it can be concluded that modern consumers are demanding, fickle, disloyal, individualistic and easily bored. They are better informed and more sophisticated. They are looking for fast and convenient shopping and demand a huge variety in products and services. What is emerging is a consumer demanding an individualistic approach to his or her needs, needs that can be very diverse and unique.

These trends can also be held true for the South African retail environment. "Changing lifestyles - especially as far as the role of women in the workplace is

concerned - are revolutionising consumer buyer patterns. Now that more women are working fulltime, there is less time for household shopping and this is shifting the emphasis increasingly to convenience shopping, compelling retailers to offer a far wider range of products and services under one roof. The trend can be seen in most large supermarkets, which are selling merchandise as diverse as fresh fish and financial services products. Apart from the time constraints, which are forcing retailers to offer a convenient and value-added shopping experience, SA consumers are also becoming increasingly demanding about the quality of products and services on offer" (The retail accordion in action in South Africa, 1998).

Addison (2002), based on anecdotal material from the likes of author Muzi Kuzwayo (Marketing through Mud and Dust); township investigations by individuals like Gill and George Mkhasibe of the Alternative Consultancy; and fieldwork by academics such as Prof John Simpson of the University of Cape Town, working with the Unilever Institute of Strategic Marketing argues that what is emerging is a picture of a society undergoing tremendous upheavals and flux in buyer behaviour:

- More than 50% of the black population is under 20 years of age, and this youth market is emerging as the major segment in terms of size (although older segments enjoy more spending power);
- Distinct social classes crosscut the black ‘community’ resulting in the development of subcultures and major differences in buyer satisfactions; and
- Enormous mobility of people between squatter camps, site-and-service, formal township housing, suburbs and inner city flatlands, makes it very difficult to pin down demographic data.

The South African consumer, although in certain aspects similar to the global consumer, has many facets shaped by culture and the local political and social events of the past. This is evident in the development of subcultures that have its own unique demands and needs.

4.1.2. Environmental changes

In Chapter 2, section 6 it was concluded that there's a conscience emerging based on ethics, passion and compassion for nature that will apply to retailers that also obtain their resources from the natural and physical environment.

Retailers, according to Knight (2000:6-9) are keen to establish their "green" credentials and it is very evident in the permissive attitude of the UK retailer of the 1970s and 1980s that encouraged large-scale out-of-town shopping developments versus a much more restrictive attitude in the 1990s (Newman & Cullen, 2002:48). Retailers are also currently looking to address a number of environmental issues including energy consumption and emissions, raw material usage, water consumption, waste, the volume of packaging, recycling, genetically modified foods and the use of chemicals (Jones, Comfort, Hillier & Eastwood; 2005).

It is also becoming evident that retailers are using the environment as a differentiator of their products. A Gallup poll (Public Lukewarm on Animal Rights, 2003) revealed that a vast majority of Americans support better treatment of animals that are factory-farmed for their meat, milk, and eggs. Companies are responding to this by labelling their products "all-natural," "free-range," "free-roaming," or "organic" and according to Schrader (2005) this organic industry is booming, with nearly 20% growth during each of the last 10 years in the States. In South Africa, Woolworths for example (illustrated in table below) are able to sell their free range and organic products at a much higher price than a similar product that has not been produced under the same "natural" conditions.

Table 22: Price comparison between free range and other products

Product	Woolworth's Free Range	Pick 'n Pay Free Range	Pick 'n Pay
Large eggs per 6	R 6. 79	R 6.49	R 4.35
Chicken breast	R 28.74 - per kg	R 33.99 – 35.99 per kg	R 11.99 – 29.99 per kg
Lamb chops	R 30 per 625g	-	R 24.95 – 27.98 per kg

* Comparison based on data extracted in April 2005

4.1.3. Economical changes

Twin paradoxes describe the twenty-first-century economy. Consumers have more choices that yield less satisfaction. Top management has more strategic options that yield less value (Prahalad & Ramaswamy; 2004:4). The rest of this discussion will focus on the emerging trends in retail that attempt to manage this economical paradox.

4.1.3.1. Globalisation

Globalisation is evident in the cross-border moves of retailers. Howard (2004:331) states that today several major grocery retailers have gained top ranking in more than one country, and six of them in three or more countries within Europe. Globalisation was further promoted through the opening of the eastern European market with interest in Asia and Eastern Europe gaining in momentum (Howard, 2004:332).

Cox and Brittain (2000:314) believes globalisation is a trend that is likely to continue for the next few years until overtaken perhaps by a new retail cycle based on storeless shopping through the Internet or its successor. Cant and Brink (1998:5) are of the opinion that globalisation will bring down tariffs and add to the deflationary pressure in all retail channels. They also anticipate some South African-based retailers to search for global opportunities and mention Pick ‘n Pay and Pepkor already involved in international trade.

Globalisation is further evident in the shopping mall trends in airports. Since 1993 most airports within Europe have been transformed into shopping malls, a trend that is likely to continue (Newman, 1998). In the United States there has been a tremendous change in the nature and provision of retailing in airports, due to economics of running airport facilities, which changed due to rising cost and deregulation in the industry (Newman & Cullen, 2002:476). The future may bring more change and airports are growing retail spaces (Newman & Cullen, 2002:477).

4.1.3.2. Consolidation

As competition intensified and the rush to expand heightened, retailers began to consolidate. This is a trend that according to Ander and Stern (2004:168) will continue in the United States and Europe. The authors refer for example to the top three discount store chains, that had in comparison with the 61% market share in 1986, an 86% market share in 2002.

Dragun and Howard (2003) are also of the opinion that consolidation will stay on the executive agenda of European retailers, but suggest that the synergistic effects expected from mergers and acquisitions often do not materialise. The companies engaged in acquisitive growth are likely to experience poorer financial returns comparative to their internally growing counterparts; and that global retailing is a sector in which the success of corporate consolidation is predicated by the ability to generate cash in excess of the cost of capital.

There is also evidence of consolidation and rationalisation of retailers within the South African environment. Shoprite Holdings (supermarket) for example has acquired OK Furniture and Furniture Hypermarket chains and currently accommodate these traditional specialist retailers in their supermarkets (Mathews, 2003).

4.1.3.3. Deflation

Cox and Brittain (2000:314) define deflation as a consistent fall in the level of prices – the opposite of the inflation that has affected the world economy for the past 50 years. They further speculate that it is possible that a new economic cycle is beginning which will involve falling prices for a period of time.

This will have a major impact on the profitability of retailers as they juggle with costs and output prices. The same scenario is true in the South African context where Cant and Brink (1998:6) list globalisation and the growth of the digital economy (marginal cost of production is getting lower) as the main drivers of deflation within South Africa.

Hudson (2005) believes that there are four main reasons why deflation has become a permanent feature of the retail landscape:

- More production at lower cost in countries in the Far East;
- The ongoing weakness of the US dollar;
- Improved production techniques; and
- Improved operations.

4.1.3.4. Economic integration

There is a growing tendency for adjoining countries to form trading blocs. This is evident in the launch of common currencies with the shortening of the retail life cycle (Cox & Bittain, 2000:315). This is a trend likely to happen in Southern Africa as well. In Chapter 2 a possible scenario was presented that indicated that the Southern African region will in the future be characterised by a federation of states and a new “federal“ economy.

4.1.4. Technological Changes

According to Ander and Stern (2004:238) retailers have access to an astounding array of technology to enable them to better analyse and plan their business:

- Most retailers can have access to real-time data on what’s selling and what’s not selling in their stores;
- Sophisticated software is available to assist with pricing, markdowns and optimisation of merchandise mix;
- Analysis tools exist to support the decision making process in terms of store location sites and projected financial performance; and
- Technology will allow retailers to further streamline the supply chain.

4.1.4.1. Prospects for e-commerce

In the early 2000’s substantial academic evidence of the ways in which business-to-consumer (B2C) e-commerce operations might affect the established retail order started to emerge with the hope of a viable source of revenue growth (Bakos, 2001; Sinha, 2000). However, Kaplan (2002) noted that this did not result

as expected and many businesses cut the scope of their e-commerce investment or completely closed it down.

One immediate consequence was that many retailers de-emphasised the perceived threat of e-commerce on their strategic agenda. Reynolds (2004:120-121) argues that perhaps retailers have allowed the pendulum to swing too far and too unreasonably against e-commerce. They further argue that whilst the direct impact of e-commerce has been relatively small in transactional terms, the informational leverage that internet accessibility provides serves to offer a different kind of challenge: a more informed consumer, able and willing to challenge the status quo of retail brands.

Underhill (2000) is of the opinion that the technology and the internet are not going to replace brick and mortar. What it may bring to retail is a more effective way to integrate distribution and marketing.

4.1.4.2. Multiple format / multi-channel retailing

Ander and Stern (2004:232) believe that multi-channel retailing is fast becoming one of the critical business drivers of the next decade. This implies that multi-channel retailers use all available mediums (e.g. internet, e-commerce, brick and mortar) in the way that the consumer wants to be approached.

In the immediate future according to Ander and Stern (2004:234) profound changes to retail stores can be expected, as organisations start to fully integrate multi-channel capabilities. These include in-store pickup, real-time inventory information at stores, and perhaps a dramatic restructuring of inventory needs at retail level.

4.1.5. Changes within the world of retail itself

The rest of this section will focus on some emerging trends within the world of retail itself.

4.1.5.1. Changing roles of suppliers and retailers

Traditionally literature has depicted retailing as a relatively passive link within the channel of distribution from manufacturers or suppliers to retailers (McGoldrick, 2002:2). In the early 1970's Pommerening (1979) as quoted by (McGoldrick, 2002) described a major shift in channel power in several European countries:

- 1950s: Manufacturer is king – post war shortages and a fragmented distribution system place the primary emphasis upon marketing and supply;
- 1960s: Consumer is king – increasing competition brought more emphasis upon marketing and the development of manufacturer brands; and
- 1970s: Trade is king – the more concentrated and powerful retailing industry increasingly took over the functions of marketing.

The decline of traditional wholesaling occurred in part because according to Ailawadi, Botin & Farris (1995: 211-48) they neither have the store nor the brand equity to differentiate themselves. Figure 15 below illustrates how the role of the wholesaler within a "conventional" channel has been bypassed by the retailer.

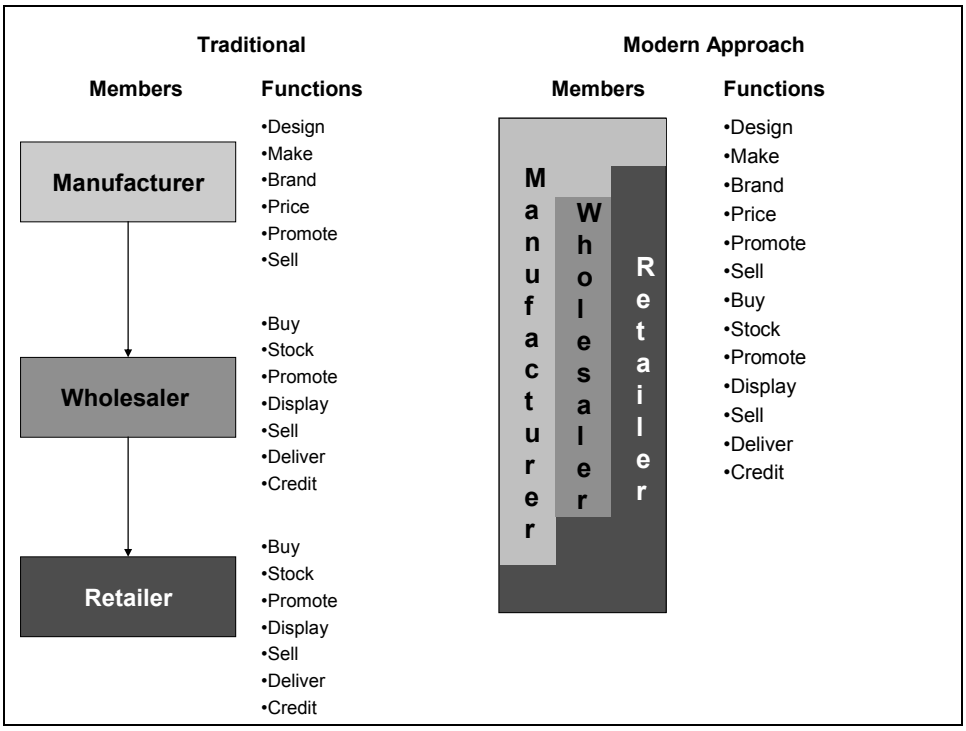


Figure 14: Changes in the distribution channel

This figure suggests that in the future, it will become even more difficult to accurately determine the business of retailers and suppliers due to the fact that the "company that controls the brand controls a greater percentage of the profits" (Ander & Stern, 2004:236). The authors further warn that the skills sets needed to excel in retail versus a branded supplier business are radically different. Organisations that can master both will be poised to take greater control of their brands and greater control of profits in future.

4.1.5.2. Changes in the brand

Based on the above argument that the company that controls the brand is the company that controls a greater percentage of the profits it is important to mention that the world of brands is also changing, focussing on emotion to make its appeal persuasive. Jonkheid (2004:49) argues that to achieve brand loyalty it needs to appeal to the consumer on various levels:

- **Metaphoric level**: Tells stories that engages the consumer, are amusing and entertaining;
- **Magical level**: Convince the consumer of the enigmatic powers inherent in the brand;
- **Cosmological level**: Provides a sense of belonging to the universe – works on a spiritual level;
- **Sociological level**: Reflects or reinforces cultural values;
- **Intra-personal level**: Provides the consumer with archetypal figures he/ she can project their dream and fantasies onto; and
- **Educational level**: Informs the consumer by communicating essential product attributes and benefits.

Dragun and Howard (2003) also argue that brand development is an area to which the leading retailers are already devoting considerable attention and investment. According to the authors, the issue is how to leverage or extend the retail brand(s) in order to add value both to the business and customers. This again, calls for clarity regarding the future direction of the retail business. They also pose the question of "Ultimately, will the retailers stay in the business of selling goods and

services, or will they have to redefine themselves as providers of impressions and experiences, of which goods and services will only be a part?”

4.1.5.3. Changes in retail strategy

According to John Dawson (2004), professor of marketing at the University of Edinburgh, over the next ten years within retail:

- Scripted strategy will give way to a more creative and innovative approach. Strategy will merge with innovation and become more immediate, but within the broad parameters of the company mission and vision;
- Value chains will change dramatically as boundaries of retailing are expanded into new arenas of providing for consumer wants; and
- Links amongst organisations in the demand (not supply) chain of retailing will exhibit greater variety with organisations existing in complex systems networks. The increasing speed of processes will mean that organisations contract-out more functions, but also become service providers for other firms.

Langabeer and Rose (2003) view the demand chain as an entity in its own right making a distinct differentiation between the supply chain and the demand chain and between demand management and demand-chain management. They define the demand chain as a complex web of business processes and activities that help organisations understand, manage, and ultimately create consumer demand.

They emphasise the point that demand-chain management attempts to analyse and understand overall demand for markets within the organisation's current and potential product range. Supply chains accentuate the efficiencies in the production and logistics processes, while the demand chain focuses on effectiveness in the business.

4.1.5.4. Changes in retail structure

In 2002, a study initiated by the Oxford Institute of Retail Management investigated sectoral trends and issues in the retail industry in three leading regional markets of the world namely, United States, Western Europe and Japan.

Table 23: Changes in retail structure

Bigness	Sameness	Saturation
Leading retailers are increasing, year by year, their corporate size. Size, however, varies around the globe. In the US the biggest retailers of any country or region operate in this geographical market. For examples; Wal-Mart is the single biggest global company; Kroger leads the supermarket category; Sears Roebuck is the leader in the department store category; and Home Depot leads the specialist stores category. In Western Europe Supermarket groups (typically Carrefour, Ahold and Tesco) dominate the league table of biggest companies, while in Japan with its comparatively smaller companies it is a mixture of convenience store and department store chains that hold sway. In addition to this growth in corporate size world-wide, there is a continuing trend for leading companies to (i) increase domestic (national) market share, and (ii) increase their store size.	This trend is described best by its three underpinning factors: • Global brands. Many companies are becoming increasingly international and are therefore developing the same retail brands world-wide; • National replication. Within national markets, as companies proliferate in size, they replicate themselves in every shopping node and "high street" within towns; and • Shopping centre proliferation. As more and more purpose-built shopping centres are opened up, retail companies are replicating their brands within these centres. New shopping centres throughout the US, Western Europe and Japan will have the same brands of Body Shop, HMV, the GAP and Bally. In addition, the aggressive international expansion of some general merchandise and supermarket companies is leading to similarity in "out-of-town" developments. Typical examples include Wal-Mart, Ikeas and Carrefour in emerging markets such as South America, Eastern Europe and parts of Asia Pacific.	The main theme here is an excess of stores and shopping centres in relation to the indigenous population. There appears to be saturation in all sectors of US retailing, mainly because of the ease of store and shopping centre development as a result of relatively low land costs. In Western Europe, there is saturation in supermarket development because of the relative smallness of countries in relation to growth in company corporate size and the effectiveness of town and country planning controls. In Japan, high land costs and major restrictions on large store development have caused saturation in store and convenience store retailing. However, it should be noted that according to the researchers "saturation" is a relative term, many retail companies in the advanced economies of the world are expecting to expand in their local markets.

From the table it can be seen that the study has found that the three significant trends among international retail companies are (i)“bigness”, (ii)“sameness”, and (iii)“saturation” trends.

4.1.5.5. Compressed life cycle

In the past the retail life cycle has looked like a typical bell curve: a period of development for an emerging concept, followed by a period of rapid growth, then maturity as the curve flattens, and eventually decline. The cycle still exists, but it has been significantly compressed as new retail concepts grow, mature and decline faster than ever (Ander & Stern, 2004:168-9).

5. CONCLUSION

All indications show that the retail industry will change dramatically in the near future. Some of these changes include:

- Emergence of a consumer-orientated society, based on convenience, a quicker demand and greater variety of products and services;
- Retail processes throughout the value chain are operating at an ever-faster level;
- The impact of globalisation, consolidation, deflation and economic integration;
- Technological changes enabling opportunities for e-commerce and multi-channel retailing;
- Changing roles of suppliers and retailers; and
- Changes in retail strategy and structure.

The following matrix is an attempt to highlight the key changes within the world of retail and to compare it to the future world of work, from a systems perspective, as discussed in Chapter 3.

Table 24: Comparison: Future world of work vs future world of retail

ORGANISATION OF THE FUTURE: A COMPLEX ADAPTIVE SOCIAL SYSTEM			
	Future Organisation	**Future Retail Organisation**	**Future Retail Organisation: South African Perspective**
Vision & Purpose	Focused on meaning and offering of solutions. A community of meaning by listening; produce what is desired and being a long term partner to their customer(s).	Changing consumers demands meaning, purpose, and the offering of solutions – not only products and services.	Changing consumers demands meaning, purpose, and the offering of solutions – not only products and services. Many facets of the SA consumer are shaped by different cultures and the local social and political events of the past.
Core competencies	Portfolio of not only products & services, but of core competencies as well. These competencies include excellence in marketing, organising the value chain and in innovation.	Changes in core competencies, organisations that can master both retail and supply skills will be poised to take greater control of their brands and greater control of profits in future.	No specific evidence of change in core competence, but evidence by Jonkheid (2004) presented on the growing importance of achieving brand loyalty. Can therefore be assumed that the organisations that can master both retail and supply skills will be poised to take greater control of their brands and greater control of profits in future.
Structure & Design/ Place of work	Virtual workplace, flexible and dynamic structure, functional and evolutionary. Change and adapt easily. Increase in complexity, interdependency of systems and widening seamlessness between people, systems, information and structures.	More flexible, change adaptive structure. In the future, it will become very difficult to accurately determine the business of retailers and suppliers Networks of networks – multi-channel retailing using all available mediums (internet, brick and mortar) in the way the consumer wants to be approached.	Emergence of multi- channel retailing requiring a more change adaptive and flexible structure for the future. Based on the above argument it can also be argued that it will become very difficult to accurately determine the business of retailers and suppliers

Success measurements	Integration of financial, environmental and social reporting. Focus on intellectual assets and knowledge management.	Emergence of an awareness of Integration of financial, environmental and social reporting. Growing awareness of the impact of globalisation	Emergence of an awareness of Integration of financial, environmental and social reporting. (This assessment is based on evidence in Chapter 4, section x referring to the King Report on Good Corporate Governance).
Governance	Organisation is a system of integrity, working towards good corporate citizenship. Focus is on wealth creation and sustainability.	Retailers are keen to establish their “green” credentials. Starting to use the environment as a key differentiator in certain products and services.	Starting to use the environment as a key differentiator in certain products and services. Evidence are presented in free range products.
Impact of technology	Technology automates existing processes, abolishing whole classes of occupation. Technology cancels traditional divisions and creates entirely new ways of organising companies. Technology eliminates the boundaries between industries.	Highly unlikely that technology and the Internet will replace brick and mortar. What it may bring to retail is a more effective way to integrate distribution and marketing and optimising of the value chain.	Highly unlikely that technology and the Internet will replace brick and mortar. What it may bring to retail is a more effective way to integrate distribution and marketing and optimising of the value chain.
Customer approach & relationships	A consumer increasingly demanding involvement in business decisions. Changing consumer socio-demographics.	Consumers demanding, fickle, disloyal, individualistic and easily bored. They are better informed and more sophisticated. They are looking for fast and convenient shopping and demand a huge variety in products and services.	Consumers demanding, fickle, disloyal, individualistic and easily bored. They are better informed and more sophisticated. They are looking for fast and convenient shopping and demand a huge variety in products and services. Demands influenced by culture and emergence of the black woman as the head of the household.

From the matrix above it can be concluded that most of the emerging trends and patterns of the future world of work also hold true for the future world of retail. The future world of work will be characterised by an integration of financial, social and environmental reporting whereas there is only an emergence of awareness of integrated reporting in the world of retail. Retailers are more likely to include this trend in their product and service offerings.

From this matrix it can also be concluded that there is a huge overlap between emerging international retail trends and patterns and the South African retail arena. Differences are depicted in infrastructure and the lack of available technology and resources in South Africa. The South African consumer is also becoming more informed and sophisticated, demanding unique product and service offerings, but these demands are driven by the own unique culture of the different subcultures within South Africa.

It can therefore be argued that the changing work and nature of leaders will also be relevant in the world of retail.

The next chapter will now focus on the changing work and nature of future business leaders within this changing world of work (Chapter 3) and changing world of retail (Chapter 4).

CHAPTER 5 – THE FUTURE BUSINESS LEADER

1. INTRODUCTION

It is difficult to envisage leadership and management in their current form surviving the emerging world of work as discussed in Chapter 3 and 4. Starkey and Tempest (2005: 140-141) provide the following reasons for this statement:

- The legitimacy of management (and leadership) is under fire as never before. Fundamental questions are raised about why managers/ leaders act and feel empowered to act in the ways they do;
- There is accumulating evidence that the future world will be transformed for the worse, unless there is a rethink in the way businesses are managed; and
- Increasing amount of dissatisfaction from employees for the stress they suffer and the long hours of operating in the slimmed-down workplace.

From the previous chapters it is clear that traditional approaches towards leadership no longer address the rapid social, cultural and organisational changes that are occurring globally. Leadership in this new economy organisation is in the midst of an emerging mindset (Anderson & Anderson, 2001). This chapter will demonstrate that the search for the requirements for the future business leader is reflected in the new approaches towards leadership that are focussing on aspects such as values, integrity and honesty towards all, while credibility forms the base of leadership.

By combining the levels of work theory (level 1-5) as well as the work and nature of leadership, a conceptual framework within which the future leadership competence will be discussed was developed. The chapter concludes with a meta-competence model of the future business leader.

2. CONCEPTUALISING THE TERM LEADERSHIP

The purpose of this section is to introduce and explore the concept of leadership. Already in the mid 1980's Bennis and Nanus (1985:4) have stated that "Leadership is the most studied and least understood topic of any in the social sciences". They

further argue that despite decades of academic analysis, empirical investigations of leaders have produced no clear and unequivocal understanding as to what distinguishes leaders from non-leaders. But still the fascination with what leadership and management encompass continues and Maxwell (2001:1) states that “There are more than fifty definitions and descriptions of it in ... this intriguing; subject we call "leadership"”.

Despite the fact that it is hard to define and capture leadership and management, the belief clearly prevails that leadership in today's organisations is more important than ever before. The rest of this section will explore the theories on management versus leadership.

Kotter (1999) argues that leadership and management are two distinctive and complementary systems of action. Both are necessary for success in an increasingly complex and volatile business environment. Management is more about coping with complexity and leadership, by contrast, is about coping with change. By reviewing the theories on leadership and management (Bennis, 1994; Drucker, 1999; Gardner, 1990; Kouzes & Posner, 1995, 2002) it can be argued that leadership and management could be regarded as two distinctive and complementary systems of action. Each has its own function and characteristic activities. Both are necessary for success in an increasingly complex and volatile business environment.

The purpose of this study is to explore the nature and competence requirements of the future business leader; therefore the rest of this chapter will focus on leadership. It appears that the concept of leadership is a complex one and has a broad range of different interpretations and in the next section the different theories on leadership will be discussed.

3. AN OVERVIEW OF LEADERSHIP THEORIES

Over the years, leadership has been studied extensively in various contexts and theoretical foundations. In some cases, leadership has been described as a

process, but most theories and research on leadership look at a person to gain understanding (Horner, 1997:270).

Five broad approaches in leadership theories have emerged in the twentieth century, namely trait, behavioural, power-influence, situational, and integrative (Covey, 2004:352). These approaches however did not occur in a linear line. Van Maurik (2001: 3) states that "Although it is true that the progression of thinking tends to follow a sequential path, it is quite possible for elements of one generation to crop up much later in the writings of someone who would not normally think of himself or herself as being of that school. Consequently, it is fair to say that each generation has added something to the overall debate on leadership and that the debate continues."

The following sections give a simplified overview of the trends and theories in leadership research during the past and present centuries.

3.1. Influences on shaping the thinking on leadership

Within Chapter 2 an overview was given on the main historical events that have shaped the world order. It was also concluded that development in the political, economic, social, technological and environmental domains started to increase during the 1500's, and gaining drastically in momentum in the early 1980's. Olivier (2003:1-9) states that from a macro perspective this can be seen as three major waves of civilisation, namely:

- Wave 1: Agricultural Age;
- Wave 2: Industrial Age; and
- Wave 3: Information Age.

As each of the waves has risen and crested, new leaders and leadership styles have emerged to show the way forward or to show succeeding generations what not to do (Olivier 2003). The following section will explore some of the theories trying to encapsulate the meaning of leadership during the ages.

3.2. Early approaches towards defining leadership

During the Agricultural Age the quality of leadership and management varied vastly – be it within politics, the army, or the church (Olivier, 2003:2). Great-man theories of leadership dominated the discussion field of leadership prior to 1900 and gave rise to trait theories of leadership (Covey, 2004:352). This early thinking on leadership is summarised by Dowd (1936) as quoted by Covey (2004:353) "there is no such thing as leadership by the masses." The masses may be influenced, but are always led by the superior few.

The next broad sweep of growth came with the arrival of the Industrial Age. Ideas surrounding the design and structure of organisations had their basic tenants and assumptions rooted in the industrial revolution of the 1700's and the professions of engineering and economics (Sharitz & Ott, 2001:28). They define these fundamentals as:

- Organisations exist to accomplish production-related and economic goals;
- There is one best way to organise for production and that way can be found through systematic, scientific inquiry;
- Production is maximised through specialisation and division of labour; and
- People and organisations act in accordance with rational economical principles.

The evolution of leadership during the Industrial Age demanded different skills, methods, approaches and human cognitive capability – business became more complex. New work levels emerged dictating the need for systems, technologies, procedures and practices (Olivier, 2003:3). It is clear that the thinking on leadership and management would become a logical, rational science in line with the thinking on evolution and scientific research. Between 1924 and 1934 the Hawthorne studies were conducted that led to new thinking about the relationships among work environment, human motivation and productivity. This shifted the focus of leadership thinking more towards the relationship between the leader, the organisation and the follower.

The rest of this section will now concentrate on the main leadership theories emerging from the Industrial Age.

3.2.1. Trait approach

The trait approach suggests that people are born with special traits that make them great leaders. The leader is endowed with superior traits and characteristics that differentiate him from his followers (Northouse, 2004). Covey (2004) argues that research of trait theories addressed the following two questions: What traits distinguish leaders from other people? and What is the extent of those differences?

Northouse (2004:18) provides a summary of the traits and characteristics that were identified by researchers:

Table 25: Summary of leadership traits

Stogdill (1948)	**Mann** (1959)	**Stogdill** (1974)	**Lord, DeVader & Alliger** (1986)	**Kirkpatrick & Locke** (1991)
Intelligence	Intelligence	Achievement	Intelligence	Drive
Alertness	Masculinity	Persistence	Masculinity	Motivation
Insight	Adjustment	Insight	Dominance	Integrity
Responsibility	Dominance	Initiative		Confidence
Initiative	Extroversion	Self-confidence		Cognitive ability
Persistence	Conservatism	Responsibility		Task knowledge
Self-confidence		Cooperativeness		
Sociability		Tolerance		
		Influence		
		Sociability		

When analysing this research the following traits are consistent throughout:

- Intelligence/ cognitive ability;
- Self-confidence; and
- Sociability, also defined as extroversion.

Cacioppe (1997:335) observes that though various studies tried to identify these traits, no definite pattern was found. Robbins (2003) claims that there are at least four limitations to the trait theory:

- There are no universal traits that predict leadership in all situations. There are, however, traits, which predict leadership in selective situations;
- Traits predict behaviour more in weak situations than in strong situations. These strong situations are those in which strong behavioural norms exist including strong incentives for specific behaviours and clearly defined expectations of which behaviours are rewarded and punished. These strong situations in turn create less opportunity for leaders to express their inherent dispositional tendencies. In many organisations, a highly structured, formal culture exists which fits the description of strong situations, limiting the power of traits to predict leadership;
- There is no clear evidence in differentiating between cause and effect. In other words, are leaders self-confident or does becoming a successful leader build the leader's self-confidence; and
- Traits do not distinguish between effective versus ineffective leaders; they seem to do a better job of predicting the appearance of leadership.

As a result of criticism, researchers shifted their focus from the search of leadership traits to leadership behaviour or style and its impact on performance and satisfaction of followers.

3.2.2. Skills approach

The skills perspective emphasises the competencies of leaders. However, the focus is shifted from personality traits as in the trait approach to an emphasis on skills and abilities that can be developed (Northouse, 2004:35-36).

Katz (1955:34) suggested that the development of three basic personal skills namely technical, human and conceptual would lead to effective administration (i.e. leadership). Katz (1955) defines:

- **Technical skill** as having the knowledge about and being proficient in a special type of work or activity;

- **Human skills** as the ability to work with people; and
- **Conceptual skills** as the ability to work with ideas and concepts.

According to Katz (1955) all three skills are important, but depending on where a person might find him/herself in the management structure, some skills are more important than others.

In the early 1990's a group of researchers set out to test a comprehensive leadership theory based on problem-solving skills. Based on the findings of this research Mumford, Zaccaro, Harding, et al. (2000) formulated a skills based model of leadership. Rather than emphasising what leaders do, the skills approach frames leadership as the capabilities that make effective leadership possible (ibid.:12). The skills model (Figure 16) suggests that the experiences acquired in the course of a leader's career influence their knowledge and skills to solve complex problems, implying that leaders can develop their abilities through experience and development (ibid.:12).

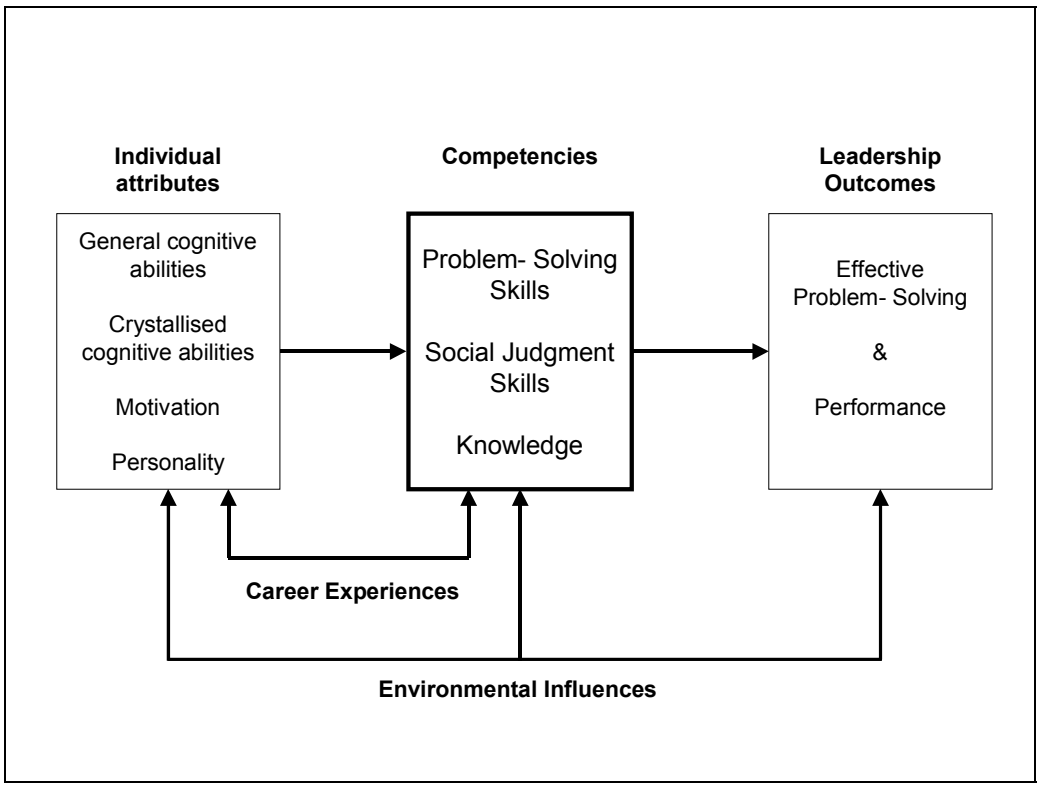


Figure 15: Skills Model of Leadership

By utilising the skills model, leadership effectiveness can be assessed through problem-solving and performance. Northouse (2004:63) though warns that the skills model is weak in predictive value – it does not explain how a person's competencies lead to effective leadership performance.

3.2.3. Style / Behavioural approach

The style approach was derived mainly from three different streams of research:

- The Ohio State Studies in the late 1940's (based on the findings of Stogdill (1948);
- The University of Michigan Studies (Cartwright & Zander, 1960; Katz & Kahn, 1951; Likert, 1961, 1967); and
- The work of Blake and Mouton on the Managerial Grid (Blake & Mouton, 1964, 1978,1985).

Based on the above-mentioned research it can be argued that leadership is composed of essentially two general dimensions: job or task behaviours and people or relationship behaviours. Leadership effectiveness is a result of the combination of these behaviours to influence followers in their efforts to achieve a certain goal or objective.

Northouse (2004:84) emphasises that the style approach is not a refined theory that provides a neatly organised set of prescriptions for effective leadership behaviour. Rather, the approach provides a valuable framework for assessing leadership in a broad way as assessing behaviour with task and relationship dimensions. Robbins (2003) propounds that in general the behavioural explanations of leader behaviour have had modest success in identifying consistent relationships between patterns of leader behaviour and group performance.

3.2.4. Situational approach

Hersey and Blanchard (1969) developed a leadership approach based on Reddin's (1967) 3-D management style theory, namely Situational Leadership

Theory (SLT). In situational theory, leadership effectiveness is a function of a variety of factors, which vary according to the nature of the leadership situation.

These theories assume that different situations require different traits and patterns of behaviour to be effective. These aspects are commonly referred to as situational moderator variables.

The situational theories added and concentrated more on a distinct dimension, namely the differences among employees and situations. This is made evident in successful leadership, which, according to Hersey and Blanchard (1977,1988) is achieved through selecting the correct leadership style and focusing it on the followers.

Leadership effectiveness is determined by followers either choosing to accept or reject the leader. This effectiveness then is dependent on the actions and input of the followers. This dimension is important as the leader's level of effectiveness depends on the actions of followers mentioned above.

Hersey and Blanchard (1977,1988) refer to this as readiness and state that it refers to the extent to which people have the ability and willingness to accomplish a specific task. SLT views the relationship as similar to that of parent and child relations. They identified four specific leadership behaviours from laissez-faire, impoverished leaders to highly directive, team leaders.

As employee maturity increases beyond the moderate level the leader should decrease the amount of relations behaviour while continuing to decrease the amount of task behaviour. When the employee is immature in relation to the task, the leader's task behaviour should be dominant. Both task and relationship behaviour should be exercised for employees with a moderate amount of maturity. When a follower is very mature, the leader should delegate responsibility for deciding how work is done and allow considerable autonomy.

In conclusion, this approach provides a model that suggests to leaders how they should behave based on the demands of different situations.

3.2.5. Contingency approach

Contingency theory in essence argues that the effectiveness of a task- or relations-oriented leader is contingent upon the situation. Leadership training programmes modelled after this theory help a leader to identify his or her orientation and to adjust better to the favourability or unfavourability of the situation (Covey, 2004).

The most widely recognised leadership contingency theory is that of Fiedler (1964, 1967; Fiedler & Garcia, 1987). According to Fiedler & Chemers (1974) contingency theory suggests that leaders' effectiveness depends on how well the leader's style fits the situation. It is also the first leadership theory that emphasises the impact of situations on leaders and not only followers, it is predictive of leadership effectiveness and it allows leaders not to be effective in all situations (Northouse, 2004:121).

Fiedler's contingency model proposes that effective group performance depends on the leader's style, the extent to which the leader has control of the situation and the interaction with employees. Fiedler (1964, 1967) further states that an individual's leadership style is fixed. This implies that if the situation requires a task-orientated leader and the person in the relationship is relationship-orientated, the situation has to be modified or the leader removed and replaced in order for optimum effectiveness to be achieved.

Fiedler (1964, 1967) identified three dimensions, which define the situational factors which determine the leadership effectiveness.

- **Leader-member relations**: the degree of confidence, trust and respect members have in their leaders.
- **Task structure**: the degree to which the job tasks are structured or unstructured.
- **Position power**: the degree of influence a leader has over power variables such as recruitment, selection, salary increments and promotions.

In contingency theory the leader is the primary decision maker and may need to change and restructure tasks in order to control tasks, activities and actions.

3.3. Contemporary leadership approaches

Already in the late 1960's Bennis argued that bureaucratic institutions are inadequate for the future that will demand rapid organisational change, participatory management and the growth of a more professionalised work force (Bennis, 1966). The Information Era was born and according to Olivier (2003:5) this wave heralded a pervasive rush of computer utilities, space technology, bio-genetics and an increasingly "internetted" world resulting in the awareness of non-linear dynamics and increasing complexity. The Information Age led to a subtle shift, away from the past where a handful of leaders dictated the future of things, to a greater, more widespread consortium of cogent leadership at all levels of endeavour (Olivier, 2003:7).

The rest of the section will focus on the more contemporary approaches towards leadership, influenced by the increase in complexity that leaders were required to deal with.

3.3.1. Transactional and exchange approaches

The transactional and exchange approaches are very much concerned with the nature of the leader-follower relationship. Shaw and Costanzo (1982) argue that these theories are built on the principles of behaviouristic psychology, adapted to social interactions and employ metaphors drawn from economics, such as reward and cost, profit and loss. This implies that the theories in this tradition share the notion that social interactions that are viewed by the participants as more rewarding than costly are likely to continue.

Chemers (1997:77) draws the conclusion that the common thread through most of the exchange theories is that leadership influence rests ultimately on the followers' perception of the legitimacy of authority. Transactional theories focus more on how leaders can motivate followers by creating fair exchanges and by clarifying mutual responsibilities and benefits.

3.3.2. Transformational approach

Bass (1985) argued that existing theories of leadership primarily focused on follower goal and role clarification and the ways leaders rewarded or sanctioned follower behaviour. This transactional leadership was limited to enabling only basic exchanges with followers and could be described as a social exchange relationship. He argued that a paradigm shift was required to understand how leaders influence followers to transcend self-interest for the greater good of their group and organisations in order to achieve optimal levels of effectiveness.

Bass (1985, 1990, 1999) conceptualised transformational leadership to comprise the following five factors:

- **Idealised influence (attributed)** refers to the socialised charisma of the leader, whether the leader is perceived as being confident and powerful and whether the leader is viewed as focusing on higher order ideals and ethics;
- **Idealised influence (behaviour)** refers to charismatic actions of the leader that are centred on values, beliefs and a sense of mission;
- **Inspirational motivation** refers to the ways leaders energise their followers by viewing the future with optimism, stressing ambitious goals, projecting an idealised vision and communicating to followers the vision is achievable;
- **Intellectual stimulation** refers to leader actions that appeal to followers' sense of logic and analysis by challenging followers to think creatively and find solutions to difficult problems; and
- **Individualised consideration** refers to leader behaviour that contributes to follower satisfaction by advising, supporting and paying attention to the individual needs of followers, thus allowing them to develop and self-actualise.

Transformational leadership broadens leadership to include the growth of followers and places strong emphasis on morals and values. Despite the positive features Northouse (2004:198) identifies the following weaknesses within the approach:

- The approach lacks conceptual clarity;
- It is sometimes seen as elitist and undemocratic;
- Suffers from an "heroic leadership" bias; and
- Has the potential to be used counterproductively in negative ways by leaders.

3.3.3. Transcendental approach

Cardona (2000:201-207) first broached the term Transcendental Leadership to describe transformational leadership that is also based on particular values and ethics such as collaboration and service orientation. Based on this concept, Sanders III, Hopkins, and Geroy (2003) developed a model that proposes three structural levels of leadership accomplishment namely transactional, transformational, and transcendental.

Essentially, the model proposes that a leader's development along three dimensions of spirituality (consciousness, moral character and faith) is associated with development along these three levels of leadership accomplishment. The proposed theory of transcendental leadership is intended to provide a framework towards a more comprehensive view of leadership by connecting traditional theories to a meaningful domain, namely spirituality. This links to the view of Caccioppe (2000:115) that transcendental leadership, at some level is about leadership wisdom, the ability to know what is needed in the moment and to appropriately fulfil a worthwhile purpose.

3.3.4. Servant leadership

The term servant leadership was first coined by Robert Greenleaf (1977), who discusses the need for a new kind of leadership model that identifies serving others as the priority. Greenleaf (2002:23) argues that servant leadership "… begins with the natural feeling that one wants to serve, to serve first. Then conscious choice brings one to aspire to lead. The difference manifests itself in the care taken by the servant first to make sure that other people's highest priority needs are being served. The best test is: do those served grow as persons; do they, while being served, become healthier, wiser, freer, more autonomous, more likely themselves to become servants?"

Spears (2002:4-8) built on the original concept of Greenleaf and identified ten characteristics of the servant-leader that he views to be of critical importance:

- **Listening:** An important skill for the servant leader, but it needs to be reinforced by a deep commitment to listening intently to others. Listening also encompasses getting in touch with one's own inner voice and seeking to understand what one's body, spirit and mind are communicating. Listening, coupled with regular periods of reflection, is essential to the growth of the servant leader;
- **Empathy:** The servant leader strives to understand and empathise with others. People need to be accepted and recognised for their special and unique spirits. One assumes the good intentions of co-workers and does not reject them as people, even while refusing to accept their behaviour or performance. The most successful servant leaders are those who have become skilled empathetic listeners;
- **Healing:** Learning to heal is a powerful force for transformation and integration. One of the great strengths of servant leadership is its potential for healing oneself and others;
- **Awareness**: General awareness, especially self-awareness, strengthens the servant leader. Awareness also aids one in understanding issues that involve ethics and values. It lends itself to being able to view most situations from a more integrated, holistic position;
- **Persuasion**: Another characteristic of servant leaders is reliance on persuasion rather than on one's positional authority, in making decisions within an organisation. The servant leader seeks to convince others rather than to coerce compliance. This element offers one of the clearest distinctions between the traditional authoritarian model and that of servant leadership. The servant leader is effective at building consensus within groups;
- **Conceptualisation**: Servant leaders seek to nurture their abilities to "dream great dreams". The ability to look at a problem (or an organisation) from a conceptualising perspective means that one must think beyond day-to-day realities;
- **Foresight**: Foresight is a characteristic that enables the servant leader to understand the lessons from the past, the realities of the present and the likely consequence of a decision for the future. It is also deeply rooted within the intuitive mind;

- **Stewardship:** Stewardship, assumes first and foremost a commitment to serving the needs of others. It also emphasises the use of openness and persuasion rather than control;
- **Commitment to the growth of people**: Servant leaders believe that people have an intrinsic value beyond their tangible contributions as workers. As such, the servant leader is deeply committed to the growth of each and every individual within his or her institution. The servant leader recognises the tremendous responsibility to do everything within his or her power to nurture the personal, professional and spiritual growth of employees; and
- **Building community**: The servant leader senses that much has been lost in recent human history as a result of a shift in which large institutions, rather than local communities, have become the primary shapers of human lives. This awareness causes the servant leader to seek to identify some means for building community among those who work within a given institution.

This approach in essence suggests an alternative to the current approaches in leadership, assuming a commitment to serving and growing others and emphasising the use of persuasion in stead of control. This is of importance for this study as it clearly defines the nature of future business leadership.

3.3.5. Psychodynamic approach

The psychodynamic approach to leadership arose out of the development of methods for dealing with emotionally disturbed individuals and out of psychological theories of personality development (Stech, 2004:261). The essential assumption of the psychodynamic approach is that an individual can change behaviour and feelings by obtaining insight into his or her upbringing, prior relationships, and psychological development (Stech, 2004:261).

Kets de Vries (2001) and Goleman (1995) both emphasise the importance for leadership to understand their own emotions, learn to manage their emotions and learning to deal with the emotions of others. Goleman (1995) called this emotional intelligence and argued that people with higher levels of emotional intelligence will function better as leaders.

Stech (2004) stresses that the psychodynamic approach consists of bits and pieces borrowed from a number of scholars and practitioners, leading to the overlap with transformational or charismatic, situational and servant leadership approaches. Based on the work of Hummel (1975), Stech (2004) and Kets de Vries (2001) the following conclusions regarding the psychodynamic approach can be made:

- The uniqueness of the approach lies in its focus on the personality of the leader and not specifically in traits, behaviours or processes;
- Leaders are more effective when they have insight into their own psychological make-up and of their followers. Therefore it is important to provide mechanisms that will lead to these insights like workshops and personality assessments;
- There is no personality type that is better than any other in a leadership position; the key is acceptance of one's own personality features and of others; and
- Emphasis is placed on the relationship of the leader with the follower, emphasis being placed on the encouragement of growth and the rejection of manipulative techniques.

3.3.6. Spiritual leadership

Research by Jacobson (1994) and Fairholm (1996) suggests that mature leaders are seeking more than merely economic rewards on the job. They are redefining work to include satisfaction of their inner needs for spiritual identity and satisfaction. The authors confirm a growing need for workplace cultures, leadership and work processes that celebrate the whole individual with needs, desires, values and a "wanting" spirit self.

Fairholm (1996:11-17) defines the transcendent values of spiritual leadership as a focus on integrity, independence and justice. Elements of spiritual leadership include the following:

- Building shared values - leaders inspire a sense of shared community values that provide the basis for sanction systems;
- Vision setting - leaders exhibit sustained ability to build consensus and lead within the framework of common vision;

- Sharing meaning - leaders create meanings for others. They engage the heart;
- Enabling - leaders train, educate and coach followers, provide motivation, involve them in approved networks and then free them from situational constraints that hamper growth/transformation towards full effectiveness;
- Influence and power - leaders have no desire to manipulate others. They help followers feel powerful and able to accomplish work on their own;
- Intuition - spiritual leaders are pioneers who try to produce real change that matters to people's enduring needs, regardless of the risk;
- Service - spiritual leaders are "servanted"; and
- Transformation - spiritual leaders transform themselves, others and their organisations (Korac-Kakabadse, Kouzmin & Kakabadse, 2002).

3.3.7. Other modern approaches

As stated in the beginning of section 3, leadership is a widely researched subject. Covey (2004) provides the following review on some of the leadership approaches not mentioned above.

Table 26: Modern leadership approaches

THEORY	REPRESENTATIVE AUTHORS / YEAR	SUMMARY
Competency-Based Leadership	Bennis (1993); Boyatizis; Cameron; Quinn	One can learn and improve critical competencies that tend to predict the differences between outstanding performers (leaders) and average performers.
Aspirational and Visionary Leadership	Burns; Kouzens & Posner (1995); Peters; Waterman (1990); Richards & Engle (1986)	According to Kouzens and Posner, leaders “ignite” subordinates’ passions and serve as a compass by which to guide followers. They define leadership “as the art of mobilising others to want to struggle for shared aspirations.” The emphasis lies in the follower’s desire to contribute and the leader’s ability to motivate others to action. Leaders respond to customers, create vision, energize employees, and thrive in fast-paced “chaotic” environments. Leadership is about articulating visions, embodying values, and creating the environment within which things can be accomplished.

Managerial and Strategic Leadership	Drucker (1999); Jacobs & Jacques (1990); Jacques & Clement (1991); Kotter (1998, 1999); Buckingham & Coffman (1999); Buckingham & Clifton (2001)	Leadership represents integration between external and internal partnerships. Drucker highlights three components of that integration; financial, performance and personal. He believes leaders are responsible for performance of their organisations and for the community as a whole. Leaders fill roles and possess special characteristics. According to Kotter, leaders communicate vision and direction, align people, motivate, inspire and energise followers. In addition, leaders are change agents and empowerers of their people. Leadership is the process of giving purpose (meaningful direction) to collective effort and causing willing effort to be expended to achieve purpose. Further, effective managerial leadership spawns effective managerial work. These authors favour requisite leadership that is dependent upon time and place, and the individual and situations.
Results-Based Leadership	Ulrich, Zenger, & Smallwood (1999); Nohria, Joyce & Robertson (2003)	Ulrich et al. propose a leadership brand which "describes the distinct results leaders deliver" and links results with character. Leaders possess moral character, integrity and energy, in addition to technical knowledge and strategic thinking. Moreover, leaders demonstrate effective behaviours that further organizational success. Furthermore, since leadership results are measurable, they also may be taught and learned. In what they call the Evergreen Project, Nohria, et al., examine more than 200 management practices over a ten-year period to determine which produce truly superior results. The four primary practices are strategy, execution, culture and structure. Companies with superior results also embrace two of the following four secondary practices: talent, innovation, leadership and mergers and acquisitions.
Leader as Teacher	DePree (1992); Tichy (1998)	Leaders are teachers. Leaders establish the "teachable point of view." Leadership is about motivating others by teaching stories. Tichy contends that effective leadership equates with effective teaching.
Leadership as a Performing Art	DePree (1992); Mintzberg (1998); Vaill (1989)	Leadership is covert in the sense that leaders do not outwardly perform leadership actions (e.g., motivating, coaching, etc.) but perform unobtrusive actions that encompass all the things a leader or manager does. A common metaphor for leadership as a performing art are orchestra conductors and jazz ensembles.

Cultural and Holistic Leadership	Fairholm (1994); Senge (1990); Schein (1992); Wheatley (1992)	Leadership is the ability to step outside the culture to start evolutionary change processes that are more adaptive. Leadership is the ability to include important stakeholders, evoke followership, and empower others. Wheatley's holistic approach assumes that leadership is contextual and systemic. Leaders create synergistic relationships between individuals, organisations, and the environment. Leaders promote learning organisations through adherence to the five disciplines. According to Senge, leaders play three roles: designers, stewards and teachers.

It is clear that the futuristic approaches emphasises vision, values (moral character, integrity) and the development of others.

3.4. Conclusion

The table on the following page is an attempt to highlight the key differences between the thinking approaches of the different theories on leadership. Even though this comparison is done in a matrix fashion it is important to note that leadership thinking did not evolve on a contingent line as indicated in the matrix. As time progressed "older" ideas were revisited or again explored through research. For example, servant leadership was first introduced in 1977, but only became popular in the late 1990's. It would therefore be logic to say that each school of thought has added something significant to the understanding of the phenomena called leadership.

Table 27: Key difference - theories on leadership

One best style or trait	**Approaches emphasising leadership from the point of the leader**		
	Trait	**Skills**	**Style / Behaviour**
	Emphasises the personality characteristics of the leader.	Emphasises the capabilities of the leader.	Emphasises the behaviour of the leader.
	Approaches emphasising the follower and the context		
	Situational	**Contingency**	
	Focuses on leadership in different situations. Demands a leader matches style to competences and commitment of followers.	Concerned with styles and situations, effectively matching the leader and situation.	
	Approaches emphasising the leadership process		
	Transactional & exchange		
	Conceptualise leadership as a process that is centred around the interactions between leaders and followers.		
No one best practice	**New Leadership Approaches**		
	Transformational & transcendental	**Psychodynamic approach**	
	Process that change. Concerned with vision, values, emotions and ethics. Concerned with the performance of followers and developing them.	Emphasis the importance of leaders obtaining insight into their personality characteristics and understanding the responses of sub-ordinates based on their personality.	
	Spiritual Leadership	**Servant Leadership**	
	Defines the transcendent values of spiritual leadership as a focus on integrity, independence and justice.	Servant leaders primarily lead by serving others.	

Based on the theories reviewed and indicated in Table 27 above it can be argued that there is not a consistent definition of a successful leader or one best understanding of what causes people to act as they do at work. The search for the requirements for the future business leader is reflected in the new approaches towards leadership that is focussing on the importance of leaders having a service mentality toward internal and external stakeholders. This includes aspects like values, integrity and honesty towards all, while credibility forms the base of leadership.

Horner (1997) argues that there seem to be some differentiating factors that can be assessed, trained, and developed that contribute to making great leaders great.

There are differences among individuals in leadership effectiveness and researchers strive to identify, quantify and predict such differences. Although it is hard to define and capture, the belief clearly prevails that interventions will help develop and improve leadership in today's organisations.

4. THE FUTURE BUSINESS LEADER

In the previous chapters evidence was presented that the world as currently known is rapidly changing. As a consequence organisations and the world of work are also changing and will continue to change. Verwey and Verwey (2003) identified two broad trends that influence the strategic and organisational demands being placed on world-wide companies:

- The continuing and accelerating changes in the international business environment are drawing more and more companies beyond their national borders; and
- The growing complexities of inter-organisational relationships between companies and their stakeholders which are challenging companies to find new and different ways to manage across once impermeable corporate boundaries.

Stated differently, organisations are faced with a period of extraordinary change, where both the essence and swiftness of change are different from what has been experienced before. Olivier (2003:19) describes it as the fourth wave and calls it the Age of the Global Brain. The fourth wave as Olivier describes it is not about technology, lower cost, production, communication and individualism, it is about a growing awareness of the increasingly complexity context. It is about a new value system.

In this section the concept of the future business leader will be explored. For purposes of the discussion on the future business leader it will be assumed that leadership in the future will depend on the fundamentals as illustrated in the figure below:

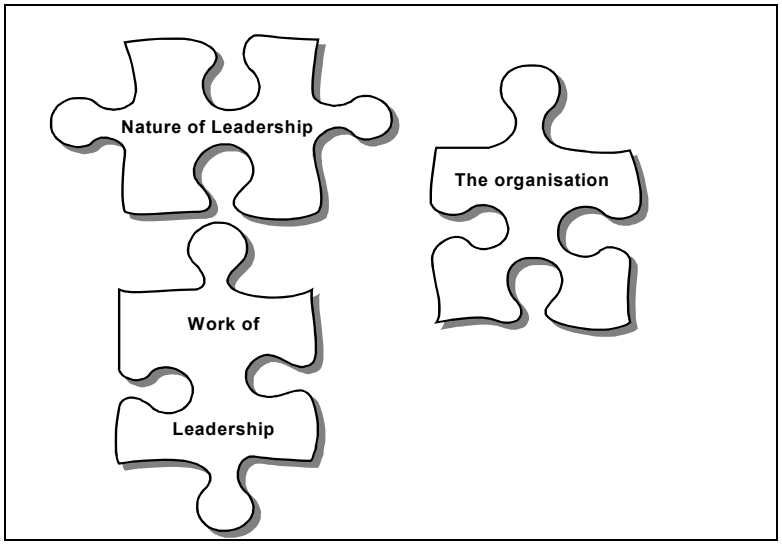


Figure 16: Fundamentals of the future Business Leader

4.1. The organisation of the future

The organisation of the future as well as the work situation was discussed in Chapter 3 and the thinking framework (Figure 11, p 82) was developed. It was argued that the modern organisational and emerging future organisation are characterised by the need for urgency, speed, growing complexity and learning with the aim of continuous innovation

4.2. The work of leadership

In Chapter 3 it was concluded that the work of the future business leader is to:

- Design and develop the purpose (or function, role) that the organisation as a complex adaptive social system and/or subsystem fulfils as measured by the implementation of its vision, mission and related strategy;
- Perceive and understand the system (organisation) as a whole which is "producing" a particular state within which the organisation and its sub-systems function - realising that a change in one area of the system will have an immediately effect on the rest of the system. Making sense of what is currently happening; by thinking in terms of process which refers to making sense of how results (order, chaos, complexity and paradoxes) are "produced" within the system and its sub-systems; and

- Think in terms of the governance which means how the integrity of a particular system is maintained to ensure the survival of the system.

Given this perspective on the changing work of leadership, the changing nature of leadership will now be explored.

4.3. The nature of leadership

The new leadership paradigm differs markedly from what was traditionally viewed as leadership or management. The traditional approach as discussed in Chapter 3 stated that to be effective, management should be founded upon a well-defined hierarchy of authority. Discipline was what leaders made of it and interpersonal relationships were encouraged to be impersonal.

This is in sharp contrast to Veldsman (2002) who argues that leadership is in essence the act of creating shared possible futures and realising a shared, specific chosen future with, through and for people. The future forms the context from which leadership derives justification and meaning for why and how to act as well as to act on the present.

In Chapter 3 evidence was presented that the world is edging towards a world community based on a "new global architecture" of shared interests and values. In the world of work people are searching for work that has meaning. Prescott (1993:63) supports this statement by stating that this search for meaning, the desire for dignity and personal identity and the recognition that goes with it, is an integrated part of a person’s life and the work that he or she does.

Verwey and Verwey (2003:88) state that the nature of leadership can be viewed as an inside-out approach. They state that:

- Leadership is based in the first instance on personal holistic "wellness";
- Which is a prerequisite for leadership within a team context (regardless of level of authority in the organisation);
- Both preceding aspects are prerequisites for organisations to be "healthy";

- The health of individual organisations must be viewed also from a perspective of its societal contribution; and
- The final measure for each of these aspects is the quality of citizenship, whether at personal, group or organisational levels.

Koestenbaum (2002:42-61) introduces the concept of ethics in his work on the nature of leadership. The following table summarises Koestenbaum's description of the four aspects of the nature of leadership.

Table 28: The nature of leadership

Vision	Reality	Ethics	Courage
• Abstract reasoning and analysis • Systemic and Strategic (integrative) thinking • Creativity • Expanding and exploring inner space-time	• Attention to practical detail • Customer needs focus • Objectivity and obtaining information • Market orientation • Results orientation • Self care (emotional, mental, physical)	• Teamwork • Meaning • Service • Validation • Mentoring • Seeing the world from other's eyes • Communication • Caring • Integrity • Morality • Principles	• Product championship • Autonomy • Independence of thought • Perseverance and determination • Responsibility • Energy • Confidence

Bracey, Rosenblum, Sanford and Trueblood (1990) define the nature of leadership as honouring five unspoken employee requests:

- hear and understand me, even if you disagree with me;
- please do not make me worry;
- acknowledge the greatness in me;
- remember to look for my loving intention; and
- tell me the truth with compassion, this will bring both compassion and acceptability to the workplace.

Kouzes & Posner (2002:17-32) defines the nature of the twenty first century business leader as follows:

- Credibility is the foundation of leadership;
- Leadership is everyone's business;
- Leaders focus on the future;
- Leaders are team players; and
- Caring is at the heart of leadership.

Coetzee (2004) believes that comprehending the psychology of the inevitable is part of the modern leader's agenda. He describes the nature of the modern business leader from the follower's perspective – what do followers expect from leaders?:

- Imaginative vision: future focus;
- Evoking spontaneous followership: relationship building;
- Removal of irrelevancies: eradicating non-sense;
- Implicit trust and respect. No doubt. No conjecture. No politicking;
- Model worthiness: credibility. Stature: standing and substance;
- Energy: mental and physical;
- Sanctioning devolution of authorities: accountability and autonomy;
- Authoritativeness: genuinely skilled. Experienced and wise;
- Unconventional: positive surplus value;
- Support and protection: team champion;
- Inspirational communication;
- Exuding and breeding confidence;
- Image: manners, reputation. Positive impact.
- Consistency: non-erratic. Predictable, fair;
- Sensitivity: appropriate behaviour and responses. High emotional intelligence;
- Noted for balanced integrated personal lifestyle and values;
- Absence of airs, seniority and importance; and
- Courage: daring. Risk inclined. Independence.

4.4. Conclusion: The nature of future business leadership

From the above it is evident that the nature of future business leadership is an integrated system focussing first of all on the individual, spiralling towards the team, the organisation and society. This integrated system is first and foremost based on holistic wellness, ethics and values from a personal perspective, implying that the wellness of the team, organisation and society is dependent on the wellness of the individual. This also links to two previous proposed arguments:

- The demand on future business leadership is to contribute to society (and not only at the organisational level) and is related to the ability of leadership to generate an appropriate level of complexity. Complexity and leadership were discussed in Chapter 3, section 6 where it was argued that it is possible to have different leadership requirements at different levels of complexity; and
- The transcendental leadership approach (discussed in section 3.3.3. of this chapter) that in essence promotes the three dimensions of spirituality namely consciousness, moral character and faith within the domain of leadership. Transcendental leadership is therefore not a new phrase; it is in fact a very significant departure from the traditional ways of thinking about the nature of leadership

Certain principles regarding the nature of leadership are evident from the literature review above:

- Leadership is about creating shared possible futures and realising a shared, specific chosen future with, through and for people. The nature of leadership forms a paradox itself, from the one perspective it is to focus on the future (bringing change), while maintaining the current;
- Leadership is “everyone’s business”, implying that it is not reserved for a selective few;
- Leadership is about the modelling of worthiness, credibility and substance. In a sense it can be argued that it is required from leadership to “proof their right to lead”, what makes leadership worthy of being followed;
- The nature of leadership is also to create sustainability. Sustainability implies a “time” component. It can therefore be argued that the nature of leadership may change at different time concepts – short, medium and long term; and

- Caring is at the heart of leadership. Followers wanted to be treated with dignity, respect and compassion. Followers are seeking honesty and acknowledgement for not only their contributions to the workplace, but also for their own uniqueness.

The next section will firstly provide an overview of the meaning and implications of "competence" and "meta-competence", followed by an overview of different leadership models and competency frameworks used and practiced across public and private sectors as well as competence frameworks identified within the literature. The section will conclude with a proposed meta-competence business leadership model for the future world of work.

5. A META-COMPETENCE LEADERSHIP MODEL

Huff and Moeslein (2005:249-252) argue that despite the vast amount of research data on leadership, there is still no integrated understanding of leadership. Of importance for this study is that the authors have put together a clearer agenda of a more difficult but more integrated set of issues for research and practice, namely:

- The challenge of moving from traditional "leader research" to a more organisation orientated "leadership research";
- The challenge of moving from the traditional focus on leadership in organisations towards a research focus that is more orientated towards leadership of organisations; and
- This need to take into account emerging forms of "distributed leadership" to assure organisational innovation and change.

The increasing scale of speed, globalisation, technology and complexity as discussed in the previous chapters also give rise to additional challenges for leadership research, which the above-mentioned researchers believe to be an added focus on modern communication, issues of strategy and the impact of leadership systems increasingly used by large organisations.

In the previous chapter it was concluded that the future world of work and the future organisation can be viewed as a complex adaptive social system. Based on this argument as well as the above agenda this study will:

- Focus on leadership and not the individual leader per se;
- Focus on leadership within an organisational context with specific emphasis on the future world of retail for validation purposes; and
- Research leadership as a system, underpinned by the language and logic of systems.

5.1. Defining leadership competence

A competency, defined as an underlying characteristic of a person which results in effective and/or superior performance in a job (Klemp, 1980) emerged in the 1980's as a response to organisational changes. These changes according to Hogg (2004:1) included:

- Flatter organisational structures resulting from the reduction in management layers;
- Employees being required to show more flexibility by developing a wider range of skills and adapting to changes in working practices; and
- Increased globalisation of organisations, demanding the introduction of a consistent set of standards within different cultures.

The existence of the two types of description of competence namely "competencies" and "competences" has given rise to some confusion and led Boyatzis to express behavioural competencies as "capabilities" (Boyatzis & Adams, 1999) while Byham and Wurstemann (2000) talked of "dimensions/ competencies". Hogg (2004:1) states that these two terms are often used interchangeably and "competency" is now generally defined as the required behaviours in order to achieve high levels of performance, while "competence" relates to a system of minimum standards, demonstrated by performance and outputs.

Although the main value of the behavioural approach to competence lies in the clear description of behavioural indicators, which ground the characteristics in observable actions, it is not unusual to find any list of management skills or characteristics, however broadly defined, described as "competencies" (Vicere, 1998).

Boak and Coolican (2001:212) noted that leadership competencies are based on behavioural indicators, but can also be expressed in terms of skills or characteristics. Of importance for this study is that recent leadership competence models (Boak & Coolican, 2001:212) focus on “meta-competencies” which refer to abilities that underpin or allow for the development of competencies, as well as characteristics that individuals will need in addition to competency such as motivation and key cognitive abilities.

Competence is not necessarily directly job-related. This statement is supported by Dingle (1995:32) that distinguishes between functional competences that are job specific; and inter-functional competences that are transferable and are therefore not job-specific. Veldsman (2002:80) links competence to a point in time and defines competence as: "the ability and willingness to perform at the appropriate level as demanded by the context at a certain point in time, but also across time".

It is concluded for purposes of this study that competences are based on behavioural indicators, best described as a set of skills, characteristics and/ or attributes that can be either functional or inter-functional in nature, as demanded by the context at a certain point in time, but also across time.

Merely trying to equip leaders for the future with a generic set of traits will not be sufficient. Chemers (1997:42) clearly states that leadership effectiveness is strongly affected by the fit between the leader’s skills, the needs of followers and the demands of the leadership situation. Nkomo and Kriek (2004) are also of the opinion that sustainable leadership requires more than selecting and developing a critical mass of individuals with a set of competencies.

5.2. Leadership competency frameworks identified through research

This section of the chapter will review leadership models and competence frameworks used and practiced across public and private sectors as well as competence frameworks identified within the literature.

5.2.1. Public / Private Sectors frameworks

For many organisations in the private sectors these frameworks represent an element of their "competitive advantage" and are therefore confidential. This section will therefore only refer to the key elements as available from the respective web sites.

Table 29: Public / Private Sectors leadership frameworks

Sector	Competences	
Airware College – Military Strategic Leadership Competencies (http://leadership.au.af.mil/sls-skil.htm)	**Change Leader** • Adapting to/ managing/ creating change • Transformation • Tolerance of others' view • Implementation • Leading with speed • Communication skills **Innovation** • Entrepreneurship • Creating of new knowledge • Risk taking and management • Adaptability • Leveraging technology **Leading People** • Team builder • Team work • Cultural sensitivity • Developing others • Inspiring **Personal Leadership** • Vision	**Results Driven** • Achievement orientated • Accountable **Collaboration** • Building coalitions • Building consensus • Partnering • Building social networks • Taking the risk to step beyond own organisation **Problem Solving** • Interdisciplinary • Collaborative • Cutting Gordian Knots **Influence** • Communication skills • Negotiation skills • Political acumen **Strategic Thinking** • Mental agility • Analytical • Critical thinking • Holistic/ systems thinking

	• Continuous learner • Self-awareness • Decisiveness • Courage • Aggressiveness • Honesty and integrity • Trust, loyalty, selflessness • Initiative • Energy and enthusiasm	• Synthesis • Thinking across boundaries • Cognitive understanding • External awareness
AstraZeneca (www.astrazeneca.co.uk)	• Provides clarity about strategic direction • Ensures commitment • Focuses on delivery • Build relationships • Develops people • Demonstrates personal conviction Build self-awareness	
Philips (http://ad.chinahr.com/jobads/leadership.asp)	• Show determination to achieve excellent results • Focuses on the market • Demands top performance • Inspires commitment Develops self and others	
Shell (www.shell.com)	• Builds shared vision • Champions customer focus • Maximises business opportunities • Demonstrates professional mastery • Display personal effectiveness • Demonstrates courage • Motivates, coaches & develops • Values differences Delivers results	
Vodafone – Global model (www.glp.vodafone.com/global.htm)	• Values communication • International team development • Strategic vision • Building organisational capability • Commercial drive	

Unknown Fortune 500 company (Emiliani, 2003)	**Primary Competency**	**Secondary Competency**
	Leadership	Strategic leadership – provides a clear vision to others of what the organisation needs to ensure its future success
		Teamwork – creates an environment in which people are involved,

		included, and have a sense of ownership
		Developing talent – achieves competitive advantage and fosters a learning environment by taking personal responsibility for identifying and developing people
		Customer focus – champions actions to exceed current and future internal / external customer needs.
		Focus on results – drives obligations to closure with precision to benefit the organisation and every constituent.
	Business acumen	Forward thinking – develops plans that anticipate short and long term business demands
		Business innovation – drives change and users new or unique solutions in business situations
		Business judgment – determines alternative solutions to problems, evaluates courses of actions and reaches sound business decisions.
		Analytical thinking – identifies root causes of problems, secures relevant information, and identifies possible solutions
	Communication	Listening – encourages others to engage in dialogue: listens actively
		Communication skills – expresses ideas effectively to establish oneself as a credible and impactful leader
	Personal	Adaptability – adjusts personally to high pressure, rapidly changing business conditions and uncertain business environments

From the review of competency frameworks (Table 29) adopted by private and public organisations it would appear that most frameworks consider cognitive, self-mastery and inter-personal competences of leaders. This can be clustered as illustrated in the table on the following page:

Table 30: Narrative of public/ private sector leadership frameworks

Nature of Leadership (discussed in section 4.3)	Self-mastery competences	• Professional mastery • Courage • Self development/ learning • Honesty, integrity • Trust, loyalty • Energy and enthusiasm • Adaptability/ resilience
Work of Leadership (discussed in section 4.2)	Cognitive competences	• Strategic thinking/ vision • Holistic/ systems/ analytical thinking • Results driven • Building organisational capacity/ resilience • Problem solving/ business judgement • Collaboration • Innovation • Risk • Customer focus
	Inter-personal competences	• Communication skills • Team building/ team development • Development/ coaching • Relationship building • Demands/ inspire commitment and performance • Culture sensitive

In section 4 an argument was put forward that the fundamentals of leadership consist of elements like the nature of leadership and the work of leaders. This argument is supported by the table above, where it can be argued that the self-mastery competences are related to the nature of leadership and the inter-personal and cognitive competences are related to the work of leaders within the organisation.

5.2.2. Frameworks available within the literature

The following is a discussion of some of the frameworks available in literature. Bennis and Nanus (1985) identify the following as key leadership competencies:

- self-awareness, self-knowledge and awareness of limitations in self and others;

- personal persistence and commitment;
- a desire and a willingness to go on learning;
- an ability to recognise, learn, and profit from failures and mistakes; and
- a capacity to accept challenges and take risks.

Veldsman (2002:81) defines leadership competences as follow:

- **Wisdom:** the ability to know when, how and with whom to do what is necessary;
- **Ethical competence:** the ability to act consistently and coherently from moral convictions, the moral centre and within the set of values of the group (at all times),
- **Personal competence:** the qualities of a person enabling a style of conduct,
- **Transformational competence:** the ability to change the existing into something new and/or to bring something new into being,
- **Transactional competence:** the ability to build, maintain and improve the existing,
- **Technical competence:** the ability to use the knowledge, expertise and skills associated with a technical domain like the retail industry;
- **Capacity to learn:** the ability to distil knowledge and wisdom from experiences and change accordingly; and
- **Contextual competence:** the ability to handle the complexity of a setting at the appropriate level.

Linking to Veldsman's contextual competence argument, it is important for this study to note the work of Jaques (1998) on complexity and leadership (Stratified Systems Theory) as discussed within the previous chapters, as this will be used as input to the various arguments and models that will follow later on. Jaques (1998:22) reports that the concept of competence can be linked to an individual's mental processing capacity. This mental processing capacity and willingness form part of the individual's potential to process and perform complex tasks. The task complexity links to the organisation's hierarchical levels within an organisation and the concomitant time span is associated with the relevant execution.

This time span of discretion also links to the levels of work, focusing on ranges from days, to weeks, to months and ultimately to years of complexity of tasks at hand. Jaques (1998:64) states that each category of task complexity "may be defined in terms of the number of variables that have to be dealt with in a given time in a situation, the clarity and precision with which they can be identified, and the rate of change" (Jaques, 1998:64).

Chapter 3 discussed the theory of complex adaptive systems and a conclusion was reached that the future world of work can be viewed as a complex adaptive social system. For purposes of this study the work of Lewin and Regine (1999:282-300) are of importance because they define the competencies of leaders within complex adaptive systems. They introduced the concept of paradoxical leadership and defined their competence framework as follows:

- **Allowing**: providing direction without directives; freedom without guidance; authority without control;
- **Accessible**, both emotional and physically: Visible when needed, invisible when not needed; and
- **Attuned**: by being attuned leaders have to be intuitive, listen and respond, discriminate, deliberate and have faith and trust.

In a study conducted by Deloitte Touche Tohmatsu, CEOs came together to help shape the concept of good leadership at the dawn of the twenty first century. Participants representing various organisations, from traditional corporations to pure new-economy corporations shared their observations and experiences (Haapaniemi, n.d.). In the study the following competences were defined:

- **A high level of self-awareness**. Even though human behaviour has an intellectual aspect to it, your emotions are far more potent. Failing to recognise your own emotional drivers will only result in a frustrating work relationship with others;
- **The knowledge of human motivation**. Be an active listener and be amenable to understanding not only what people do, but why they do the things they do. Remember that comprehending human motivation is more of an art than a science;

- **Established knowledge and learning networks**. Effective leaders develop and participate in continuous "knowledge networks" that aren't limited to technical and professional topics. The key is to surround yourself with others who will ponder a wide range of subjects, including life's great mysteries;
- **The ability to effectively analyse and package complex information**. If you can take a complicated issue, break it down into simple parts and present a clear-cut strategy, then you have accomplished something few people can do;
- **The willingness to be flexible, the capacity to be fast**. Traditional management and leadership wisdom still prevails in the new economy, but it's been propelled into warp speed;
- **The ability to make decisions in conditions of extreme ambiguity**. Being able to make a good decision even when you don't have all the data, advice, and time you need. In other words, go with your gut; and
- **The ability to allocate limited resources perceptively**. You and your competitors have the same dilemma: a scarcity of resources that can include a lack of money, technology, time, and so on. But knowing which balls to juggle—without dropping one of them—is critical to success.

Part of the work of leaders (as defined in the previous chapter) is to make sense of what is currently happening; by thinking in terms of process which refers to making sense of how results (order, chaos, complexity and paradoxes) are "produced" within the system and its sub-systems. From a sense-making perspective Higgs (2003) identified the following competence elements:

- **Envision** is the ability to identify a clear vision of the future, to enable people to utilise the required identified skills;
- **Engage** with people identifying the appropriate way, for each individual, in understanding the vision and the way in which they can contribute in achieving that goal;
- **Enabling** the identification of talent and potential, but also creating an environment supporting this initiative;
- **Encouraging** open communication channels assisting and guiding participants in debating all issues or concerns; and

- **Mentoring** individuals in enhancing their capabilities by providing support to meet the required envisioned contribution.

As this specific study will aim at validating a meta-competence model within the world of retail it is important to refer to a study conducted by Boak and Coolican (2001:212-220) that defined a leadership competence model for the retail business leader. From the outset the focus of the research was to concentrate on the crucial leadership dimension of the area manager job. The focus for their study was personal or behavioural competency related to leadership, rather than the professional competencies needed for every aspect of the role, or the necessary underpinning knowledge required.

The six key leadership competencies identified by the study are set out in Table 33 on the following page. Each competency represents a cluster of critical behaviours. There are 36 behaviours in the model. For example, the competency of taking action contains the following behaviours:

- Identifying opportunities through working with the team, pre-empting potential issues for the business and prioritising what will make the difference;
- Putting processes in place to make the initiative happen, and pulling together relevant resources, having the determination and commitment to make it happen;
- Taking action within the framework of the company culture and also considering the wider and longer term implications of actions;
- Through a process of evaluating and learning from actions taken, knowing what will make a difference to the business and taking that action;
- Actively seeking to do things better; and
- Motivating and inspiring teams by communicating the broader picture and explaining the impact of specific activities on the business as a whole.

Table 31: Retail Leadership Model

Acting strategically	Understanding the bigger picture, thinking ahead about the future demands to the business, enabling others to do the same and consistently referring to a longer term vision
Influencing and inspiring others	Having the self-confidence, drive and energy to share a vision of the future business in an inspirational and motivational way which harnesses the commitment of others
Taking action	Proactively identifying what needs to happen and taking responsibility for getting things done
Developing a high performing team	Recruiting, coaching and motivating branch managers to achieve outstanding results, by providing the freedom within a framework for everyone to contribute to the business on an individual and team basis
Making decisions	Understanding the context in which decisions are made, quickly identifying, absorbing and analysing the information required, while thinking both broadly and creatively about potential solutions
Evaluating and learning	Re-inventing personal and team performance on an ongoing basis, identifying areas of potential development and opportunities to change behaviours and processes

The main limitation of the study of Boak and Coolican (2001) lies in the focus of only looking at the role of the area manager and not necessarily looking at levels of work complexity. It is clear from the description of the competences that the model is largely concerned with operational excellence, which according to Olivier (2003) largely refers to Levels I to III of work complexity. Very limited reference is made to Levels IV and V which are concerned with strategic contribution and creating a sustainable competitive edge.

5.3. Integrating narrative

Based on this review of the literature on competences, the future world of work (chapter 3) and the nature of leadership (discussed in section 4), from a systems perspective the following conclusions can be drawn:

- Leadership is about the "doing" of leadership, as well as the "being" of leadership – defined in this study as the “work” and “nature” of leadership;
- Business leadership in essence is about ensuring that the organisation achieves its vision and executes its strategy in a corporate responsibly manner;
- There is an increasing awareness that the purpose of organisations cannot be defined by financial returns only;
- There is a demand for a significant change in the nature of the relationships between leadership, employees, customers and the environment;
- There is an increasing demand on leaders to have a service or steward mentality toward internal and external stakeholders. This includes aspects like values, integrity and honesty towards all, while credibility forms the basis of leadership; and
- There is an apparent consensus that the competence of the leader is fundamental to the leader's effectiveness.

In essence therefore, leadership viewed in this manner can be summarised as in the following table:

Table 32: Summary of the work and nature of business leadership

Achieving sustainable business results	Is concerned with the strategic intent and purpose of the organisation	Referring to the what of leadership
Sense-making and influence	Is concerned with strategic execution, learning and influence of different relationships	Referring to the how of leadership
Transcendental	Is concerned with the nature of leadership, ethical behaviours, keeper of the code and leadership effectiveness	Referring to the why of leadership

Taking the above outline into consideration as well as the leadership frameworks referred to in section 5.2. a number of competences can be identified which can be meaningfully clustered within different work categories of leaders. These will be used as the basis for the development of the meta-competence model that is discussed in section 5.4.

Table 33: Clustering of competences

Work of Leaders	Category Descriptor	Competency	Evidence in Literature
Design and develop the purpose the organisation fulfils as measured by the implementation of its vision, mission and related strategy.	Achieving sustainable business results	Thinking strategically	Emiliani (20030 Haapaniemi (nd) Higgs (2003)
		Acting strategically	Boak and Coolican (2001) Lewin & Regine (1999)
		Organisational Resilience	Emiliani (2003) Bennis & Nanus (1985) Veldsman (2002) Haapaniemi (nd)
		Technical Competence	Veldsman (2002)
		Customer Orientation	Emiliani (2003)
		Business Acumen	Emiliani (2003)
Perceive and understand the organisation as a whole. Making sense of what is currently happening; by thinking in terms of process which refers to making sense of how results are “produced” within the organisation.	Sense-making and Influence	Learning and Knowledge Networking	Bennis & Nanus (1985) Veldsman (2002) Haapaniemi (nd)
		Taking action	Emiliani (2003)
		Influencing others	Higgs (2003)
		Information Processing	Haapaniemi (nd)
		Contextual Competence	Veldsman (2002) Jaques (1998) Haapaniemi (nd)
		Talent Management	Emiliani (2003) Veldsman (2002) Higgs (2003)
		Developing high performing teams	Boak and Coolican (2001) Emiliani (2003)
Think in terms of the governance to secure the integrity of the organisation to ensure the survival of the organisation.	Transcendental	Self-Insight	Emiliani (2003) Bennis & Nanus (1985) Haapaniemi (nd)
		Wisdom	Veldsman (2002)
		Integrity	Veldsman (2002)

This table will now be used as a base to develop the future meta-competence model.

5.4. Meta-Competence Business Leadership Model

It was mentioned in Chapter 4 that the Stratified Systems Theory (SST) suggests a general model of organisational functioning such that there are increasingly complex critical tasks or requirements at each organisational level and that effective leaders address these tasks. The increasing task complexity is a function of the uncertainties created by the necessity to deal with a more encompassing and turbulent environment as a leader moves up the hierarchy.

The next step is the articulation of leadership competencies across the competence categories and complexity levels as set-out in Table 33 (p183). A key aspect of this framework is that although a competency spans all the levels of complexity, the definition of such competencies at each of the levels of complexity may indeed be very different. Stated differently, the behavioural evidence of a particular competency may be different at each of the complexity levels.

Having identified the competencies, the next phase involved the detailed definition of the competencies in terms of levels of complexity as well as the typical behavioural evidence of the presence or absence of competence.

From the previous chapter (Chapter 4) on retail it was argued that there are four principles that underpin retailing. These principles can clearly be argued to be Level III work, which in essence has a 1–2 year focus and are concerned with competence in constructing, connecting and fine-tuning systems to optimal utilisation of resources (See reference to Oliver on p 92). The changes in retail as discussed in Chapter 5 will most probable lead to an increase in the complexity of work as well, leading to a Level IV, which is concerned with competence in integrating new futures, new services and products including positioning the organisation within the market context. Therefore for purposes of this study the competence model will focus only on Levels III and IV, as the intent is of this study is to validate the leadership model for the future world of retail.

The competencies outlined in Table 33 (p 183) were subjected to the following process:

- From the literature study conducted within this chapter the competencies were further described in terms of the skills, behaviour and attributes associated with Levels III and IV of work complexity;
- This was further subjected to a process that involved retail business leaders currently operating on levels III and IV to verify the logic, flow and consistency of the descriptors (See Chapter 6 for detailed description on the process and the research sample group); and
- This process gave rise to the following table (Table 34 p 186) which is a listing of the competencies with their definitions (description) at each of the levels of complexity.

Table 34: Meta-Competence Business Leadership Model

Work of Leaders	Competence Category Descriptor	Competency identified	Level of Complexity	
			Level III- Good Practice (1-2 years) Competent in constructing, connecting and fine-tuning systems to optimal utilisation of resources	**Level IV - Strategic Development (2-5 years)** Competent in integrating new futures, new services and products including positioning the organisation within the market context
Design and develop the purpose the organisation fulfils as measured by the implementation of its vision, mission and related strategy.	Achieving sustainable business results	Thinking Strategically	• Convey the organisational vision. • Convey the organisational strategy through constructing, connecting and fine-tuning systems.	• Is able to integrate different futures in order to design a clear vision for the organisation to ensure its future success. • Design and develop the organisational strategy.
		Acting Strategically	• Through the enablement of people execute the intended organisational strategy. • Prepares for external trends and alternative scenarios potentially impacting the business in the medium term.	• Consistently review, restates and reinforce the intended organisational direction. • Prepares for external trends and alternative scenarios potentially impacting the business in the long term.
		Organisational Resilience	• Is able to convey a clear understanding of the need to and steps of change and assists employees and colleagues in dealing with change. • Manages the paradox of stability and change.	• Is able to respond positively to environmental and organisational change(s) and/or business setbacks in directing the organisation through times of uncertainty. • Have a paradoxical combination of making harsh, unpopular decisions for the sake of the future sustainability of the business, and assisting employees and colleagues in dealing with change.
		Technical Competence	• Able to utilise the knowledge, expertise and skills associated with a technical domain like the retail industry with the purpose of constructing, connecting and fine-tuning systems to optimal utilisation of resources.	• Able to utilise the knowledge, expertise and skills associated with a technical domain like the retail industry with the purpose of developing new services and products including the positioning of the organisation within the market context.

Work of Leaders	Competence Category Descriptor	Competency identified	Level of Complexity	
			Level III- Good Practice (1-2 years) Competent in constructing, connecting and fine-tuning systems to optimal utilisation of resources	**Level IV - Strategic Development (2-5 years)** Competent in integrating new futures, new services and products including positioning the organisation within the market context
		Customer Orientation	• Direct energy towards the creation of meaningful solutions for identified customer base. • Knows the detail of customer needs and how it affects service requirements.	• Is sensitive to changing customer requirements and the organisation's capacity to meet such, by actively involving the customer. • Can initiate organisational response to customer demands.
		Business Acumen	• Clear understanding of the operational business drivers. • Develops and implement plans that anticipate business demands. • Identifying root causes of problems. • Design and develop innovative solutions regarding systems and resource utilisation.	• Creating and exploiting business opportunities by positioning the organisation and its products and services in such a way that sustainability of the organisation is ensured. • Clear understanding of external factors that could influence the operational business drivers. • Identifying root causes of problems. • Design and develop innovative solutions.

Work of Leaders	Competence Category Descriptor	Competency identified	Level of Complexity	
			Level III- Good Practice (1-2 years)	**Level IV - Strategic Development (2-5 years)**
Perceive and understand the organisation as a whole which. Making sense of what is currently happening; by thinking in terms of process which refers to making sense of how results are "produced" within the organisation.	Sense-making and Influence	Learning and Knowledge Networking	• Participate in continuous "knowledge networks" that aren't limited to technical and professional topics. • Able to share the learning and knowledge with others.	• Institute and participate in continuous "knowledge networks" that aren't limited to technical and professional topics. • Able to inspire others and share the knowledge and learning with others by teaching stories.
		Taking Action	• Putting processes and resources in place to make the initiative happen. • Consistently delivers what has been agreed to and demonstrates commitment by walking the talk.	• Have the determination and commitment to integrating new futures, new services and products including positioning the organisation within the market context. • Consistently delivers what has been agreed to and demonstrates commitment by walking the talk.
		Influencing Others	• Is able to identify the paradigms and needs of various individuals and groups and can adapt own leadership style to these. • Able to sell ideas and concepts to people and getting them to willingly follow the set direction, without compromising the contributions and growth of the follower.	• Create synergistic relationships between individuals, organisations, and the environment. • Seeks out information which increases understanding of key individuals, their needs and perspectives. • Create an environment of openness, trust and understanding.
		Information Processing	• Relevant information is gathered, selected and processed in a practical, step-wise manner to identify potential answers which are then evaluated.	• Inter-related information is gathered pro-actively from a wide variety of sources / perspectives and processed / applied creatively to compare several "what if" scenarios (both from a holistic and detailed perspective).

Work of Leaders	Competence Category Descriptor	Competency identified	Level of Complexity	
			Level III- Good Practice (1-2 years)	**Level IV - Strategic Development (2-5 years)**
		Contextual Competence	• Able to handle the complexity of a setting at the level of constructing, connecting and fine-tuning systems to optimal utilisation of resources.	• Able to handle the complexity of a setting at the level of the future and future scenarios.
		Talent Management	• Attract and retain talent that fit the business requirements. • Develop talent by assisting the people in continuous appropriate learning and development. • Optimise systems and processes that foster the free expression of ideas, and empowering others to contribute to the organisation.	• Attract and retain talent to ensure a future competitive advantage. • Aligning human and other resources, creating an organisational culture that fosters the free expression of ideas, empowering others to contribute to the organisation, and provides meaning and purpose to the job.
		Developing High Performing Teams	• Optimise the crested environment in which people are involved, included and have a sense of ownership. • Encourages and support team work within own team.	• Creates an environment in which people are involved, included and have a sense of ownership. • Work across organisational boundaries to encourage teamwork.

Work of Leaders	Competence Category Descriptor	Competency identified	Level of Complexity	
			Level III- Good Practice (1-2 years)	**Level IV - Strategic Development (2-5 years)**
Think in terms of the governance to secure the integrity of the organisation to ensure the survival of the organisation.	Transcendental	Self-Insight	• Understands own strengths and weaknesses in terms of the demands of being a representative of the organisation. • Ensures that own capability profile is aligned with the appropriate level and nature of job outputs.	• He/she understands their limitations and potential in terms of a career. • Takes total responsibility to ensure that they are aligned with a job that leverages own competitive edge with regard to personal capability profile. • Transcend self-interest for the good of the group.
		Wisdom	• Is able to make decisions in a changing environment by identifying alternatives, imagining the outcomes of these alternatives and deciding on the correct one.	• Weighing conflicting information, associating information interactions and identifying ranges of possible appropriate alternatives before making a decision. • Evaluates risks in the context of the business and develops contingency plans accordingly.
		Integrity	• Demonstrate behaviour that is credible, respected by others and reflect the appropriate organisational values. • They admit to own mistakes and are prepared to shoulder blame.	• Influential in creating the appropriate organisational values. • Demonstrate behaviour that is credible, respected by others and reflect the appropriate organisational values.

The next step in the research process is now to validate in the following chapters the meta-competence leadership model as defined in the previous pages for the future world of retail.

6. CONCLUSIONS

It is clear from this chapter that traditional approaches towards leadership no longer address the rapid social, cultural and organisational changes that are occurring globally. Leadership in this new economy organisation is in the midst of an emerging mindset and that the contemporary leadership research agenda has changed and the focus are now on:

- organisation orientated leadership research;
- leadership of organisations; and
- emerging forms of distributed leadership to assure organisational innovation and change.

Based on this changing agenda of leadership this chapter focused on leadership and not the individual leader per se; focussed on leadership within an organisational context with specific emphasis on the future world of retail for validation purposes; and researched leadership as a system, underpin by the language and logic of systems.

Reviewing the literature research in this chapter and viewing leadership from a complex adaptive social systems perspective the following conclusions were drawn:

- Leadership is about the "doing" of leadership, as well as the "being" of leadership – defined in this study as the “work” and “nature” of leadership;
- Business leadership in essence is about ensuring that the organisation achieves its vision and executes its strategy in a corporate responsible way;
- There is an increasing awareness that the purpose of organisations cannot be about financial returns only;
- There is a demand for a significant change in the nature of the relationships between leadership, employees, customers and the environment;

- There is an increasing demand on leaders to have a service or steward mentality toward internal and external stakeholders. This includes aspects like values, integrity and honesty towards all, while credibility forms the base of leadership and
- There seems to be consensus that the competence of the leader is fundamental to the leader's effectiveness.

By combining the stratified systems theory, the levels of work theory as well as the work and nature of leadership a conceptual framework was developed in which the competences of the future business leader were discussed, catering for the requirements of complexity among different organisational levels. A key aspect implied by this framework is that although a competency spans all the levels of complexity, the definition of such competencies at each of the levels of complexity may indeed be very different. Stated differently, the behavioural evidence of a particular competency will be different at each of the complexity levels. For purposes of this study the meta-competence model only focussed on Levels III and IV of the Levels of Work model, as the intent is of this study is to validate the leadership model for the future world of retail.

The conceptual framework developed was further populated with competencies defined on Levels III and IV work complexity and was further subjected to a process that involved retail business leaders currently operating on Levels III and IV to verify the logic, flow and consistency of the descriptors. The chapter concluded with a meta-competence model of the future business leader within the future world of work and will be validated within the following chapters for the future world of retail.

CHAPTER 6: RESEARCH DESIGN & METHODOLOGY

1. INTRODUCTION

The previous chapters explored the literature in terms of the emergence of the future world and the rationale of conducting research from a futuristic paradigm. This led to the identification of models and theories which could be utilised in making sense of the future world. This research formed the basis of a premise which asserts that, due to the complexity and speed of changes in the world, the future world of work, as well as the nature of leadership and work of leaders, also needs to be revisited at a very fundamental level.

The value of the literature research was found in the conclusions drawn, in that the traditional approaches towards leadership no longer address the rapid social, cultural and organisational changes that are occurring globally. It was proposed that the future organisation can be viewed as a complex adaptable social system, and that the futuristic model regarding the future world of work can be applied to the future world of retail.

The aim of this literature review was to develop a conceptual model for defining leadership competencies which could be considered important for the future organisation, with specific reference to the South African retail environment. This aim led to the creation of a conceptual framework of the key leadership competencies required for leading in an increasingly complex world. The next step was the articulation of leadership competencies across the competence categories and complexity levels. Having identified the competencies, the next phase involved the detailed definition of the competencies in terms of levels of complexity as well as the typical behavioural evidence of the presence or absence of competence.

In this chapter the research methodology will be discussed in terms of the research design as well as the implementation thereof, in order to validate this conceptual leadership competence model which will assist organisations in

developing the future leadership competence within their respective fields of expertise.

2. RESEARCH DESIGN & METHODOLOGY

More specifically, the objectives of this research were to establish:

- The paradigm of the future world;
- The paradigm of the future business environment and world of work from a systems perspective;
- The work and nature of future leaders within the future environment;
- A leadership meta-competence model for the future business leader; and
- The validity of the meta-competence model within the South African retail environment.

The three main approaches considered for this study were 1) a quantitative approach, 2) a qualitative approach and 3) a mixed approach. A mixed approach was adopted, resulting in this research consisting of a two-phase, sequential exploratory project which is characterised by an initial phase of qualitative data collection and analysis, followed by a phase of quantitative data collection and analysis. It may or may not be implemented within a prescribed theoretical perspective (Creswell, 2003:215).

According to Cresswell (2003) the purpose of this strategy is to use quantitative data and results to assist in the interpretation of the qualitative findings. The reasons for the selection of this approach lie in the identified advantages of this approach and the relevance of this approach to this study:

- The two-phase approach makes the research easy to implement and straightforward to describe and report on;
- It is useful when the researcher wants to explore a phenomenon, but also wants to expand on the qualitative findings; and
- It could make a largely qualitative study more palatable to a quantitative advisor, committee, or research community possibly unfamiliar with the naturalistic tradition (Creswell, 2003:216).

2.1. Research design

The design used for this research is therefore exploratory in nature and both a quantitative and a qualitative approach were employed. The integration of both methodologies is called triangulation (Leedy, 1993: 139, 143). This integration uses several frames of reference in the analysis of the same data, which allows the researcher to test a theory in more than one way, where such a theory may require complete scientific validation. The research design consisted of a number of phases, and conceptually can be viewed as follows:

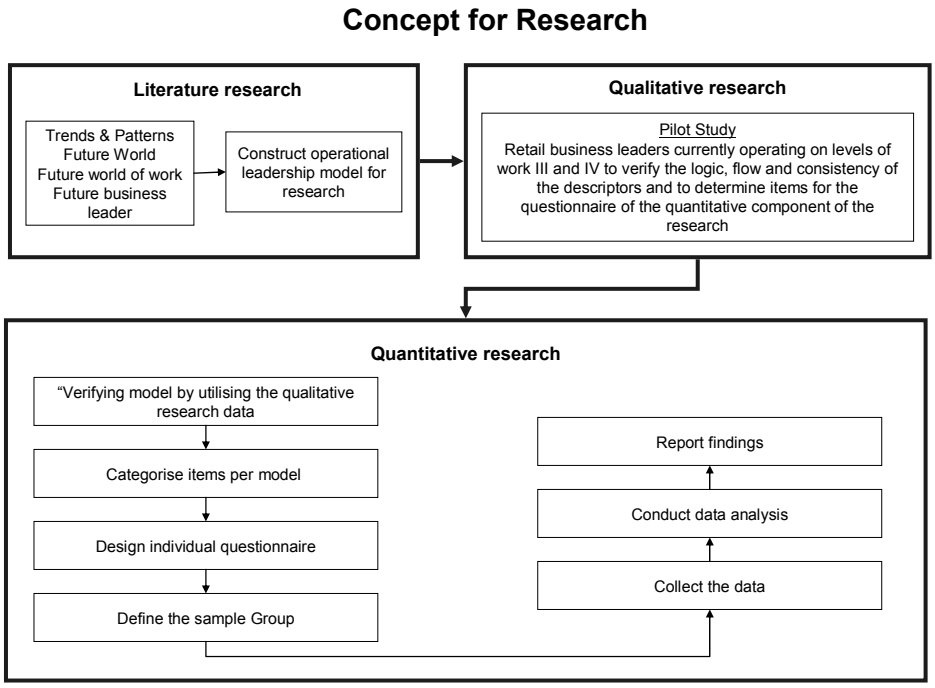


Figure 17: Conceptual approach for research procedure

The phases in the conceptual model are discussed below.

2.2. Phase I: Qualitative dimension – Pilot study

Denzel and Lincoln (1994:2) view qualitative research as a multi-method where researchers study things in their natural settings, attempting to make sense of, or interpret, phenomena in terms of the meaning people bring to them. This implies the use of particular terminology and a specific procedure (methodology) for the

acquisition and evaluation of data and knowledge that will be discussed in the rest of the section.

Phase I was treated as a qualitative pilot study with the specific objective of exploring the thoughts of South African retail business leaders on the competencies needed for the future world of work. This process led to the operational research model described in Chapter 5, which will be further verified in Phase II discussed in section 2.3.

The qualitative methodology followed is explained below:

2.2.1. Participants in the pilot study

As indicated in Chapter 4, Levels of Work Theory indicates that conducting work at a certain level of complexity requires both an understanding of complexity at that specific level as well as the ability to generate complexity at that level. Keeping this statement in mind the following selection criteria for participants in the pilot study was constructed:

- Ability to function on a Level III or IV of work complexity;
- Extensive experience in the retail industry; and
- At least 3 years of experience in a senior management position.

Five (5) retail business leaders from the Furniture and Appliances sector, currently operating on both Level III and IV, have been identified through determining their current level of work via their different role descriptors. Level III work was very much associated with work that mainly encompasses the constructing, connecting and fine-tuning of systems to optimise utilisation of resources, and Level IV work was concerned with integrating new futures, new services and new products, including positioning the organisation within the market context.

The pilot group was characterised by the following:

- The group formed part of the senior management echelon in their different companies;

- They were all male;
- The average age of the group was 47 years; and
- They had an average of 22 years of experience in retailing.

2.2.2. Ontological dimension

The ontological dimension refers to the study of being or reality. In the human sciences the ontological dimension relates to the area ("territory") or domain which scientists consider to be their field of research or study (Jordaan, 2004). As far as ontology is concerned the basic proposition of the interpretive paradigm is that people constitute the world-out-there in terms of their subjective experiences.

2.2.3. Epistemological dimension

The role of the researcher is to gain a human understanding of the pilot group by engaging them naturally and empathically. The pilot group was engaged in order to verify the logic, flow and consistency of the descriptors of the already defined model in a workshop scenario.

2.2.4. The qualitative methodology and findings

For purposes of this study the participants in the pilot study were provided with the research outline as well as the findings of the literature review before the workshop.

The workshop was an inductive process in which there was mutual simultaneous shaping of factors. It was context-bound, and patterns and theories were developed for understanding. Its accuracy and reliability was shown through verification. The following procedure was employed:

- Participants were provided with the already defined meta-competence model, based on themes consisting of 15 competencies taken from the literature;

- Through a focus group discussion the participants were asked to verify the flow, logic and consistency of the descriptors;
- Responses were immediately captured; and
- The different responses were incorporated into the model and participants were asked to again verify the content of the model.

The value of the pilot study was in the identification of another competency namely "strategic thinking", and the clarification of the meaning and applicability of the identified competencies in the current and future world of retail. The pilot study also indicated that the five participants were convinced that the increase in complexity in the world of retail will require different leadership competencies in the future.

The pilot study also provided the structure and possible items for the research questionnaire. The pilot group was also used to verify the items and questions of the actual questionnaire, prior to its being utilised, in the quantitative study to be discussed in section 2.3.

In order to validate the findings of the pilot study a quantitative study was conducted. The next section will now focus on the quantitative dimension.

2.3. Phase II: Quantitative dimension

The quantitative dimension aims to provide a broad overview of a representative sample of a large population. The assumptions underlying this approach are according to Creswell (1994:150):

- **The ontological assumption** is that reality is objective and singular, apart from the researcher;
- **The epistemological assumption** is that the researcher is independent from that being researched; and
- **The methodological assumptions** are that the research is a deductive process, based on cause and effect, on static design (categories isolated before study), it is context-free, generalisations lead to prediction and

understanding, and that the research is accurate and reliable through validation and applicability.

The rest of this section will outline the research hypothesis, research variables and the instrument that will be used for testing the hypothesis, and to make sure the instrument is understood and clearly articulated.

2.3.1. Research hypothesis

In Chapter 1 the following hypothesis was formulated:
There is a difference between the current definition of the work and nature of business leaders and the future business leader meta-competences within the South African retail industry.

2.3.2. Research variables and relationships

The aim of this section is to translate the operational research model (p186) in a manner that will make the analysis and reporting of results easier to interpret.

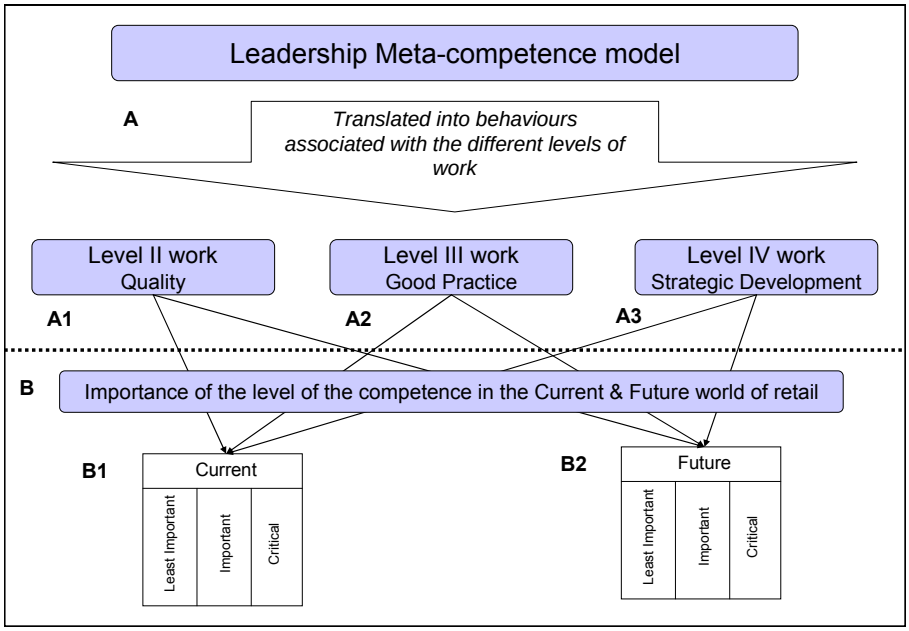


Figure 18: Research variables

As seen from the above diagram, essentially three sets of interactions are to be investigated:

- The relationship between A1 (Level II), A2 (Level III), A3 (Level IV) and B1 (Current);
- The relationship between A1 (Level II), A2 (Level III), A3 (Level IV) and B2; (Future) and
- The relationship between B1 (Current) and B2 (Future).

2.3.3. Measurement instrument

In order to test the relationships between the different variables a questionnaire based on the operational research model shown in Chapter 5 (p186) was created. Smith (1981:167) suggests that the questionnaire must be simpler and more self-explanatory in form than the pilot study workshop conducted, as the questionnaire respondent is more likely to misinterpret questions or omit essential items.

As stated in section 2.2. the pilot study also provided the structure and possible items for the research questionnaire. The pilot group was also requested to verify the items and questions of the actual questionnaire before it was utilised in the quantitative study, to ensure its face validity.

The questionnaire (included as Appendix A) consists of 41 questions with 3 statements per question. The statements were allocated as follows:

- 1 Statement referring to Level II work – Service;
- 1 Statement referring to Level III work – Good Practice; and
- 1 Statement referring to Level IV work – Strategic Development.

Conceptually the construction of the questionnaire can be illustrated as follows:

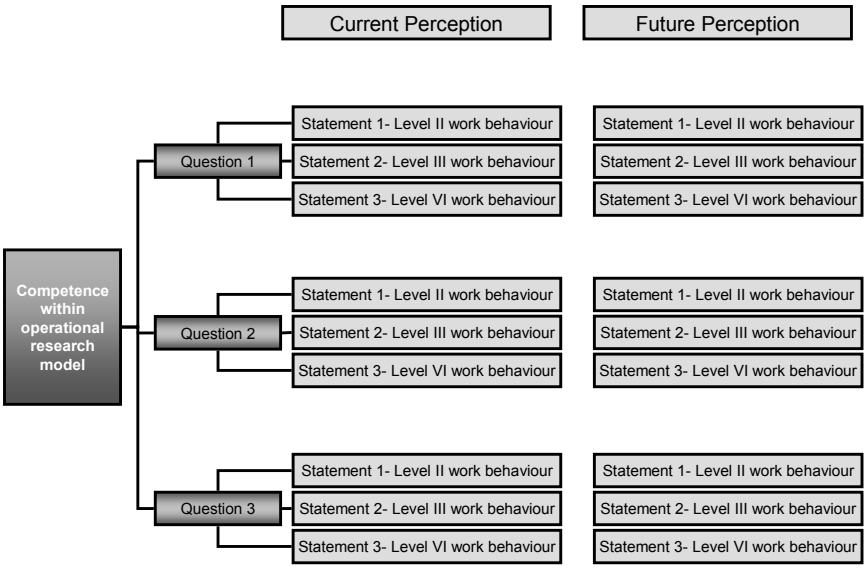


Figure 19: Construction of research questionnaire

The questionnaire required the sample group to firstly rank order the 3 statements per question in terms of how important they view them for retail business leaders (working at their current organisational level) for the current world of work. Secondly they were required to rank the relative importance of the items for retail business leaders for the future world of work in the same manner. In essence this implies that the questionnaire can be viewed as two questionnaires, these being the items with a current focus and the items with a future focus respectively.

The following table is a representation of the structure and components of the questionnaire.

Table 35: Component names: Questionnaire

Component Cluster	Component Name	Items Included in Questionnaire
Achieving sustainable business results	Thinking Strategically	1,2
	Acting Strategically	3,4
	Organisational Resilience	5,6,7
	Technical Competence	8,9,10

	Customer Orientation	11,12,13
	Business Acumen	14,15,16
Sense-making and Influence	Learning and Knowledge Networking	17,18
	Taking Action	19,20,21
	Influencing Others	22,23,24
	Information Processing	25,26,27
	Contextual Competence	28,29,30
	Talent Management	31,32,33
	Developing High Performing teams	34,35
Transcendental	Self-Insight	36,37
	Wisdom	38,39
	Integrity	40,41

2.3.4. Sampling and Data Collection

A convenience sampling approach was followed, as it can be a good source of data in exploratory research. It is a method to test ideas or to gain ideas about a subject of the study. Results of a convenience sample might produce evidence so compelling that a more sophisticated sampling procedure becomes unnecessary. However, the limitation of this non-probability method is that it does not indicate how representative the collected information is, compared to the population as a whole, and this method incorporates no controls to ensure precision (Cooper & Schindler, 2002).

Respondents were located by the snowball technique. This design has become popular in recent years in studies where respondents are difficult to identify and are located through referral networks. Individuals are selected who identify others who in turn identify others. The “snowball” gathers individuals as it rolls along (Cooper & Schindler, 2002).

Based on referrals, 172 senior managers in the retail industry were targeted as it was argued that the current levels of work complexity will be based on the current hierarchical level of the employee. Questionnaires were distributed in an electronic format and electronically returned to a central point to protect the identity of the

respondent. The following table shows the distribution of the identified sample within the retail environment.

Table 36: Questionnaire distribution

Type of Retail Industry	Number of Companies represented	Number of Senior Managers
Furniture & Appliances	9	72
Clothing	2	18
Other	5	11
Total	**16**	

The questionnaire also provided for a section where the individual could assess his/her own level of work complexity. It was further assumed that the current level of work of the majority of the sample will be on Level III, and that the majority of the sample group will therefore consist of Level III respondents.

2.3.5. Sample description

The questionnaire was completed by 101 respondents at 16 different retail organisations. The following data provides an overview of the profile of the respondents:

2.3.5.1. Age Group

The following table and chart illustrate that, in terms of the age distribution of the respondents who completed the questionnaire, the major proportion of respondents were in the age group 40-49.

Table 37: Age Group Distribution

Age Group Category	Frequency	Percent	Cumulative Percent
<40	19	18.8	18.8
40-49	44	43.6	62.4
50+	38	37.6	100.0
Total	101	100.0	

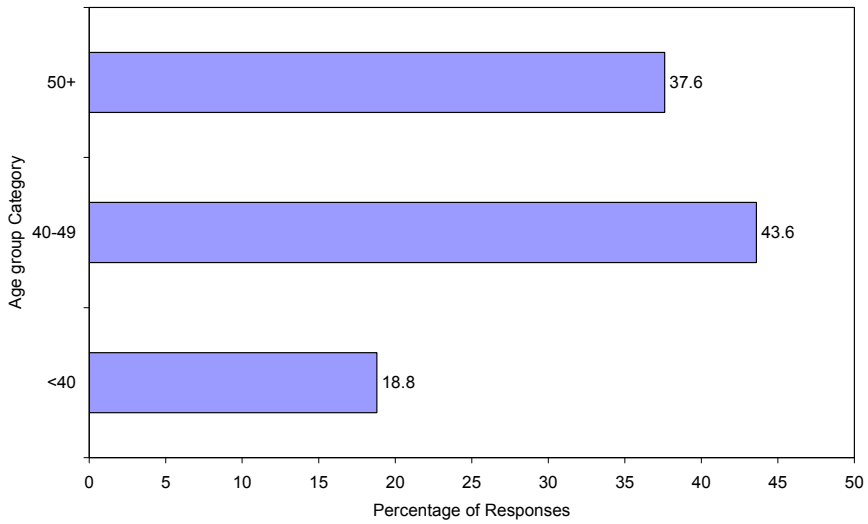


Figure 20: Age Group Distribution

2.3.5.2. Gender

The following table and chart illustrate that senior managers within the targeted retail industries are mostly male.

Table 38: Gender Distribution

Response	Frequency	Percent	Cumulative Percent
Male	82	81.2	81.2
Female	19	18.8	100.0
Total	101	100.0	

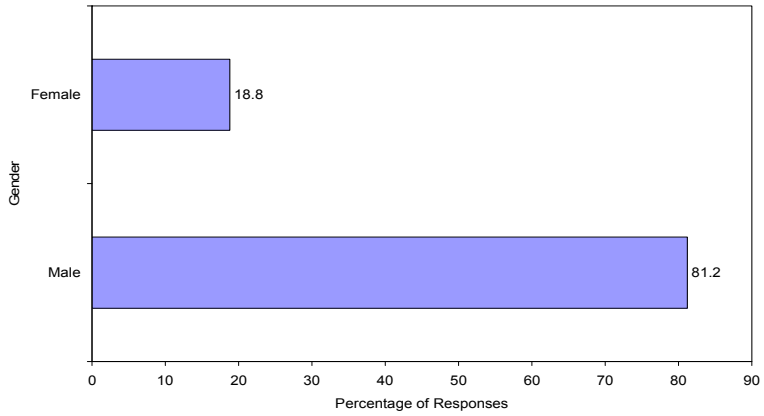


Figure 21: Gender Distribution

2.3.5.3. Years of service within current organisation

The following table and chart illustrate the distribution of the years of service of respondents. The data would seem to indicate that the majority of respondents have between 6 and 10 years of service within their current organisation.

Table 39: Years-of-service Distribution

Response (years)	Frequency	Percent	Cumulative Percent
0-5 years	19	18.8	18.8
6-10 years	26	25.7	44.6
11-15 years	17	16.8	61.4
16-20 years	17	16.8	78.2
20+ years	22	21.8	100.0
Total	101	100.0	

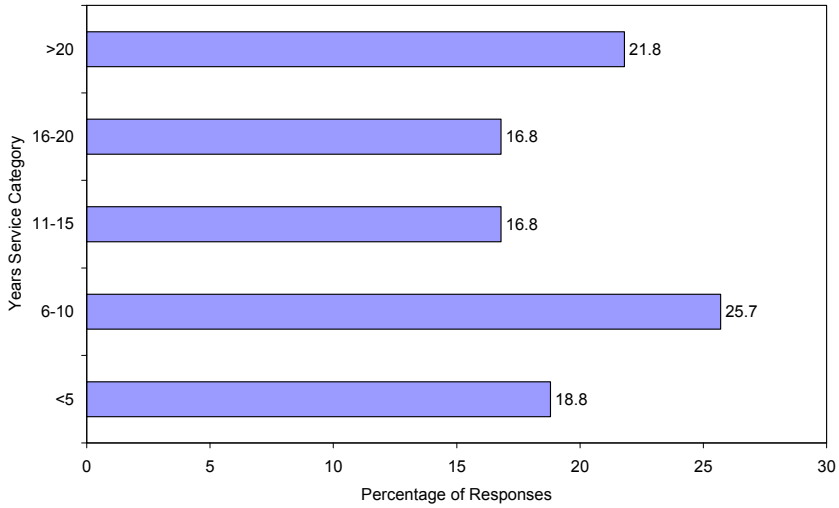


Figure 22: Years-of-service Distribution

2.3.5.4. Educational level

The following chart and table illustrate that the formal educational level of respondents is relatively high, given the South African context, with the majority indicating a tertiary education.

Table 40: Educational level Distribution

Response	Frequency	Percent	Cumulative Percent
Grade 12 or less	48	47.5	47.5
Tertiary	53	52.5	100.0
Total	101	100.0	

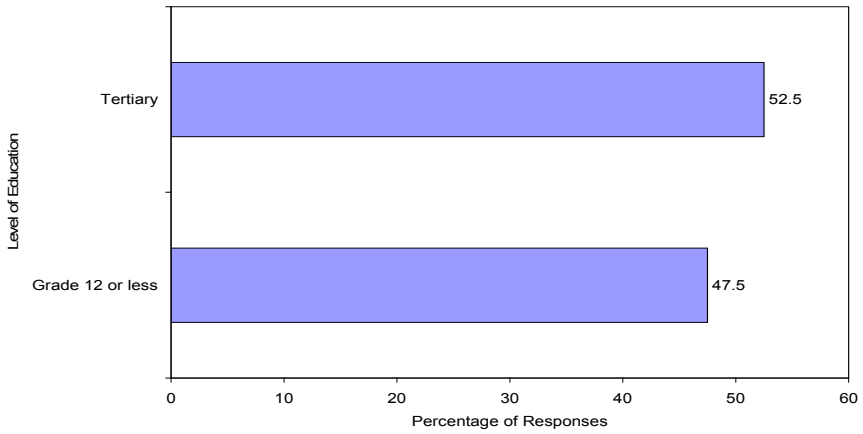


Figure 23: Educational level Distribution

2.3.5.5. Home language

The following chart and table illustrate the home language of respondents. The data would seem to indicate that the majority speak English as a home language.

Table 41: Home language Distribution

Response	Frequency	Percent	Cumulative Percent
English	58	57.4	57.4
Afrikaans	43	42.6	100.0
Total	101	100.0	

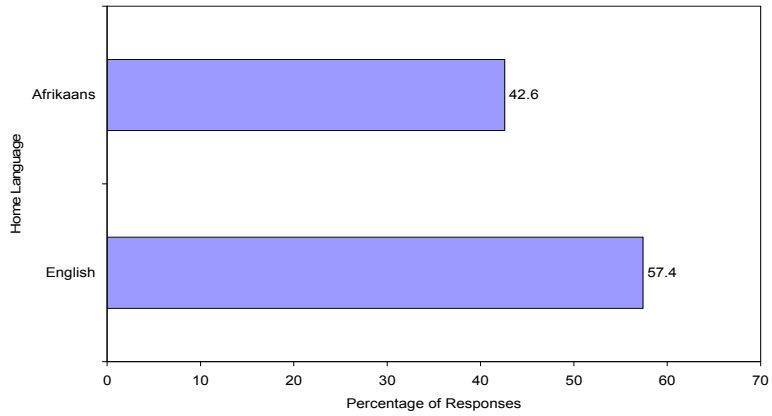


Figure 24: Home language Distribution

2.3.5.6. Indicated level of work

As indicated in section 2.4.4. it was argued that the current level of work complexity will be based on the current hierarchical level of the employee, assuming that targeting senior managers will result in a sample population

currently conducting Level III and IV work. The following table and chart illustrate the distribution of the level of work of the employee as reported by him or herself. The data seems to indicate that the majority of respondents consider themselves to conduct work associated with a Level III and IV work complexity.

Table 42: Indicated level of work

Response	Frequency	Percent	Cumulative Percent
Level II	22	21.8	21.8
Level III	41	40.6	62.4
Level IV	38	37.6	100.0
Total	101	100.0	

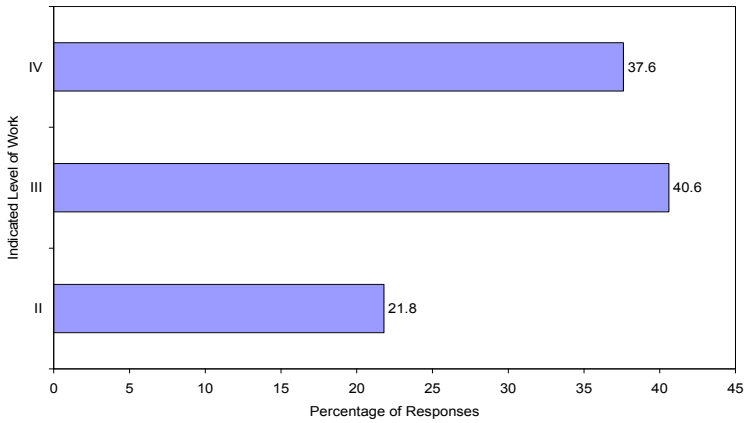


Figure 25: Indicated level of work

2.3.5.7. Type of retail industry

The following chart and table illustrate the type of retail industry where respondents are currently working. The majority of the responses indicated employment in the Furniture, Appliances and Audio-visual Industry.

Table 43: Type of retail industry

Response	Frequency	Percent	Cumulative Percent
Clothing	11	10.9	10.9
Other	18	17.8	28.7
Furniture, Appliances & Audio-Visual	72	71.3	100.0
Total	101	100.0	

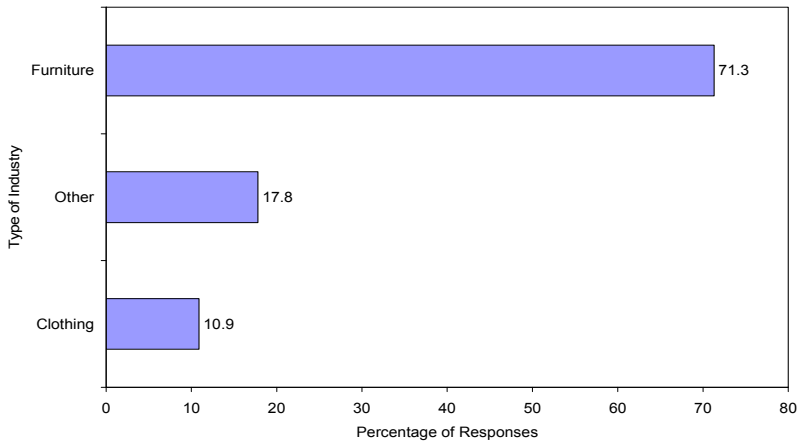


Figure 26: Type of retail industry

2.3.5.8. Summary

From the responses indicated, it is evident that the majority of respondents:

- Are aged between 40 and 49 years;
- Are male;
- Have been employed in their current company for between 6 and 10 years;
- Have a tertiary qualification;
- Speak English as a home language;
- Indicated a Level III or IV in terms of current work complexity; and
- Are employed in the Furniture, Appliances and Audio-visual Industry.

This also indicates a limitation in the study, in that the size of the different groups is too small to report on any significant difference between the different groups. It could not be determined for example if there was any difference between the responses provided by males and females.

2.3.6. Data capture and Analysis

The data obtained from the respondents was captured into separate databases constructed for this purpose. To ensure the accuracy of the data, data validation rules were constructed in the research questionnaire itself. Statistical analyses were performed using SPSS version 13.

2.4. Research ethics

Mouton (2001:239) states that the ultimate goal of all science is the search for truth. This implies a moral commitment in terms of the search for truth and knowledge. The following issues as adapted from the work of Mouton (2001:239-46) were considered to be of significant importance in the implementation of this study:

- The researcher shall all times strive to maintain objectivity and integrity in the conduct of the research. This implies the use of a specific methodology and a full report on all findings;
- The researcher shall adhere to the highest possible technical standards during the research process;
- Under no circumstances would data/ observations be changed or fabricated; and
- The research subject(s) will have the right to anonymity and confidentiality. This includes the right to refuse participation in the research, the right to full disclosure about the research as well as the right to not be harmed in any manner.

3. CLOSING COMMENTS

This chapter described the research methodology in terms of the research design and the implementation thereof in order to validate the conceptual leadership competence model. A mixed approach was adopted, resulting in this research consisting of a two-phase, sequential exploratory research process which is characterised by an initial phase of qualitative data collection and analysis, followed by a phase of quantitative data collection and analysis.

This integration uses several frames of reference in the analysis of the same data, which allows the researcher to test a theory in more than one way, so that such a theory may undergo complete scientific validation.

This chapter has indicated that the pilot group for the validation of the operational research model consisted of five (5) retail business leaders from the furniture and

appliances sector. This chapter has further indicated that the questionnaire based on the operational research model was completed by 101 respondents (N= 101) in 16 different retail organisations (N=16).

This chapter has also started to explore some of the limitations of this study namely the use of a convenience sample. This led to the base size of the different groups in the sample being too small to report on any significant differences between the different groups.

In the following chapter, the analysis of the variables contained in the research model as well as the hypothesis testing will be discussed.

CHAPTER 7: RESULTS, DISCUSSION AND INTERPRETATION

1. INTRODUCTION

In this chapter, the results of the analyses performed are discussed and some conclusions drawn from them. Reference would be made to specific tables and charts contained in the previous chapter as necessary, rather than being repeated in this chapter.

2. RESEARCH HYPOTHESIS

Based on the research objectives set out in Chapter 1 and the operational research model outlined in Chapter 5 the following research hypothesis were formulated:

There is a difference between the current definition of the work and nature of business leaders and the future business leader meta-competences within the South African retail industry.

3. RESEARCH RESULTS, DISCUSSION AND INTERPRETATION

In this section of the chapter the detail of procedures followed and results obtained pertaining to the postulated hypothesis are set out.

3.1. Introduction

To test the hypothesis, the current and future responses had to be looked at in a combined fashion. Responses were therefore capture in a table showing the rank order per item for both current and future competences. This table is indicated in Appendix B.

For example tables for

- Future_Competence1_Item1 vs. Current_Competence1_Item1; and
  Future_Competence1_Item2 vs. Current_Competence1_Item2

were designed.

In order to test the hypothesis that there is no association between the rows and columns in tabular data the chi-square statistic was considered. The chi-square statistic assumption states that in tables larger than 2x2, 80% of all cells need to have a count of 5 or more (in the present case 2x3). This was however not the case in all tables and the chi-square test could not be performed successfully.

Steyn, Smith, Du Toit and Strasheim (1994) argue that a significant correlation coefficient is not necessarily an indication of a strong linear relationship, therefore it is often of greater importance to determine the confidence interval of *p*, rather than testing Ho:*p* = 0. Fisher's r to z-transformation (z-test) was designed to test for confidence intervals on the difference between correlations. Therefore the z-test was performed. This test does not only indicate significance, but also gave the direction and strength of the significance. This led to the conclusions below. The statistical analysis performed is set-out in Annexure B.

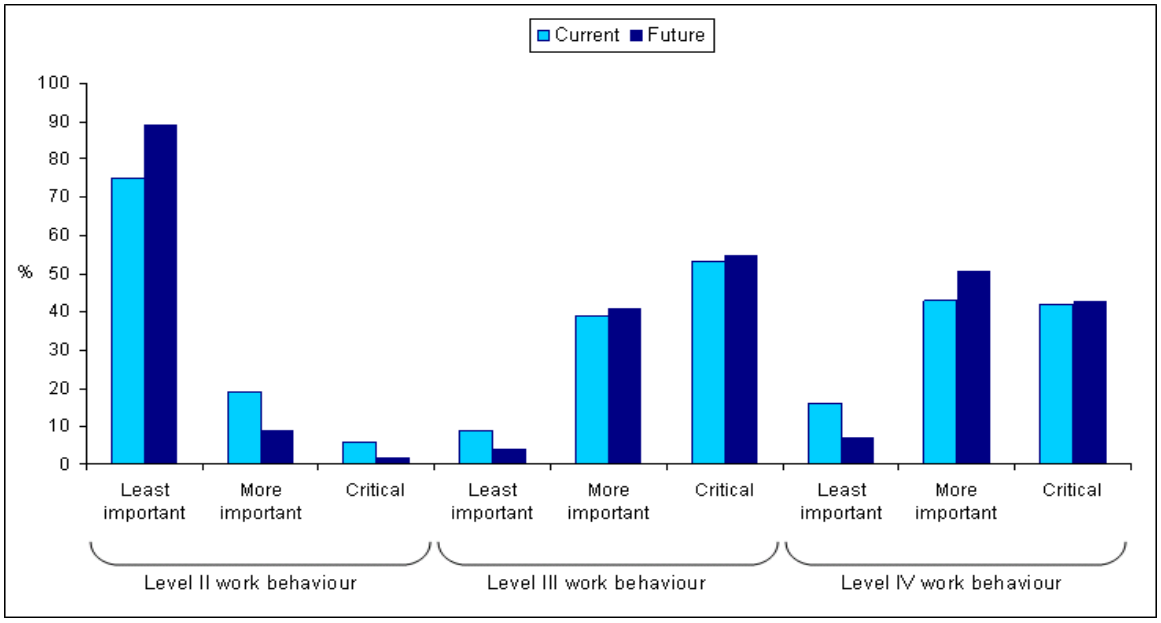
3.1.1. Competence: Thinking strategically

Item 1 - Vision

From the data analysis and Figure 27 it can be seen that there is a difference between the current and future definitions of the work and nature of business leaders, where Level II work behaviour is perceived to become less important in the future and Level III and IV work behaviour is perceived to become more important for the future business leader.

55% of respondents classified Level III work behaviour as critical for the future and 43% classified Level IV work behaviour as such. Using the z-test it was found that there is a significant increase ($p \leq 0.05$) in the proportion of respondents who classified Level II work behaviour as least important (current 75% vs. future 89%).

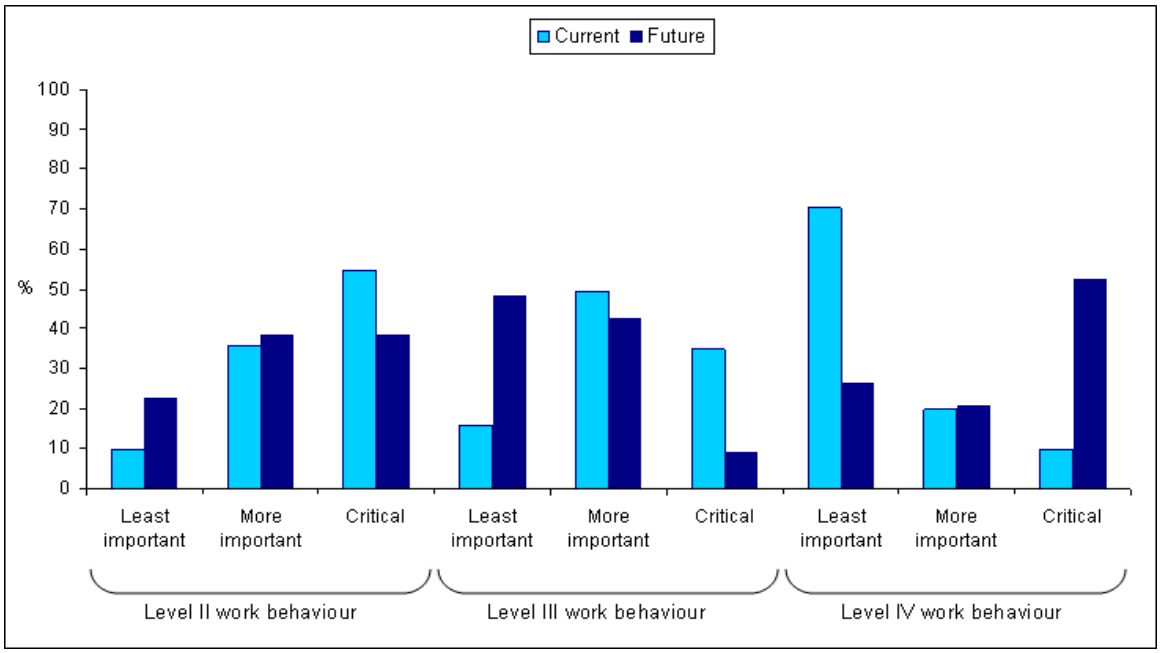
Figure 27: Thinking strategically: Item 1



Item 2 – Communication message

A significantly smaller proportion of respondents classified Level II and III work behaviour as critical for the future (Figure 28). Level IV work behaviour moved from being the least important attribute for the current world of work (70% of respondents) to being of critical importance in the future world of work (53% of respondents). Significantly ($p \leq 0.05$) more respondents classified Level IV work as critical for the future (current 10% vs. future 53%).

Figure 28: Thinking strategically: Item 2



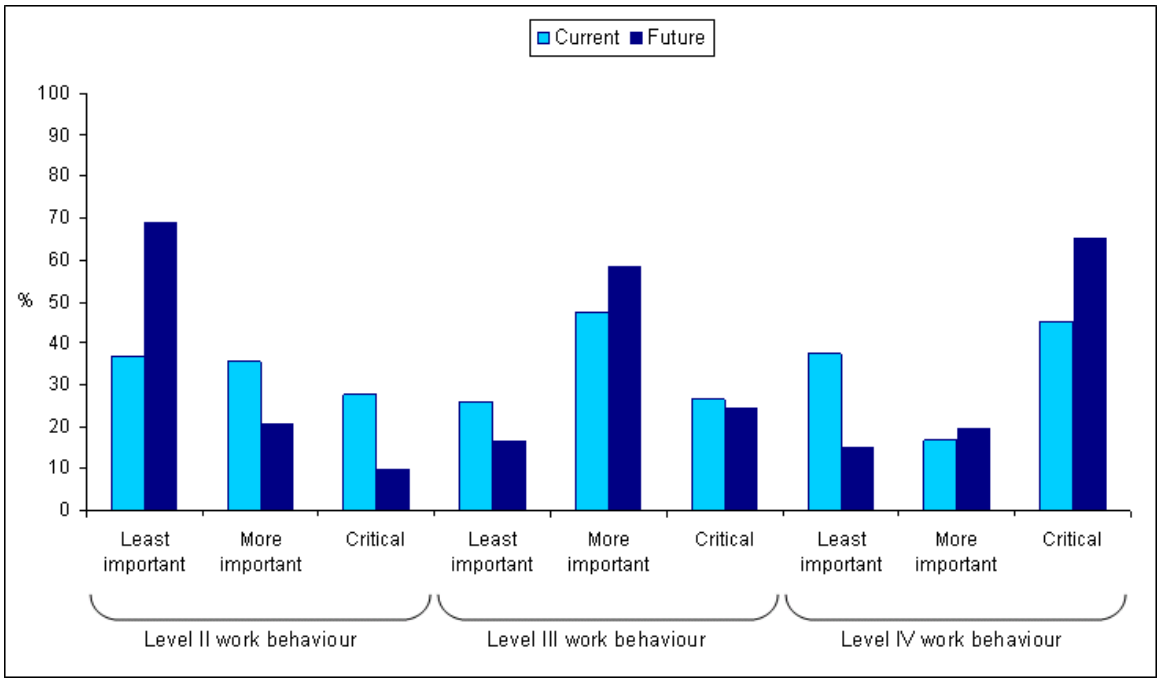
It can therefore be concluded that, with regard to **Thinking Strategically**, Level II work is perceived to play the least important role in the future world of work. The focus will be more on Level IV work as a critical part of a business leader's work and to a lesser extent on Level III. Retail business leaders therefore report a difference in the level of work in the current and future in terms of Thinking Strategically.

3.1.2. Competence: Acting strategically

Item 3 – Strategy focus area

From the data analysis and Figure 29 below it can be seen that there is a distinct difference between the perceived current and future definition of the work and nature of business leaders. Level II work behaviour shows a significant decline in importance from current to future world of work. The proportions of respondents who have classified it as more important or critical also showed a significant decline from current to future. Level IV work behaviour was classified as critical by a significantly ($p \leq 0.05$) larger proportion of respondents for the future than for the current work environment. The perceived importance of Level III work behaviour remained consistent between the current and future worlds.

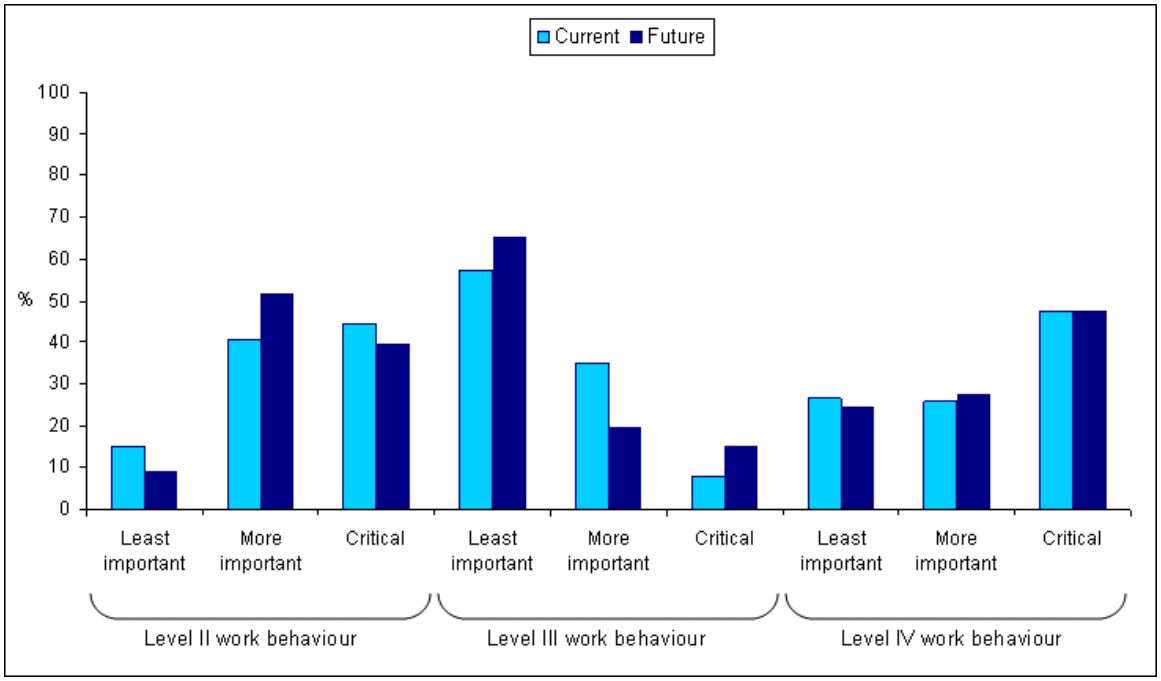
Figure 29: Acting strategically- Item 3



Item 4 – Work results

It can be seen (Figure 30) that there is not a distinct difference between the current and future definitions of work. The perceived importance of Level II work behaviour showed some decline, although not significant. There is also a slight decline in the perceived importance of Level III work behaviour, which is not significant. The perceived importance of Level IV work behaviour remained consistent between current and future definitions, where this level is classified as critical for both current and future.

Figure 30: Acting strategically- Item 4



It can therefore be concluded that Level IV work behaviour in terms of **Acting Strategically** is perceived to form a critical part of future business leader meta-competences.

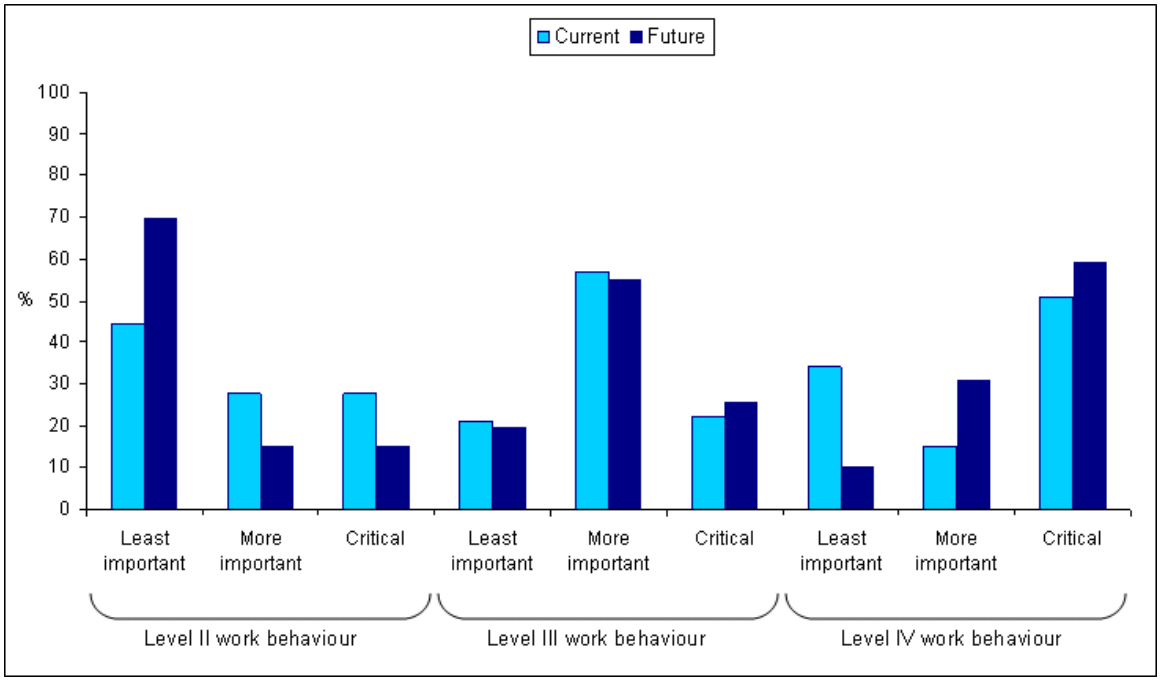
3.1.3. Competence: Organisational Resilience

Item 5 – Responses to change

The data analysis (Figure 31) indicates that there is a distinct difference between the perceived current and future definition of the work and nature of business leaders. Level II work behaviour showed a significant decline in importance for the future, with 70% of respondents classifying it as least important compared to the

45% who stated that it is least important for the current world of work. The perceived importance of Level III work behaviour remained consistent, with the majority of respondents classifying it as more important for both current and future worlds. Significantly (p≤0.05) more respondents perceived Level IV work behaviour to become more important for the future than for the current work environment, but not necessarily critical.

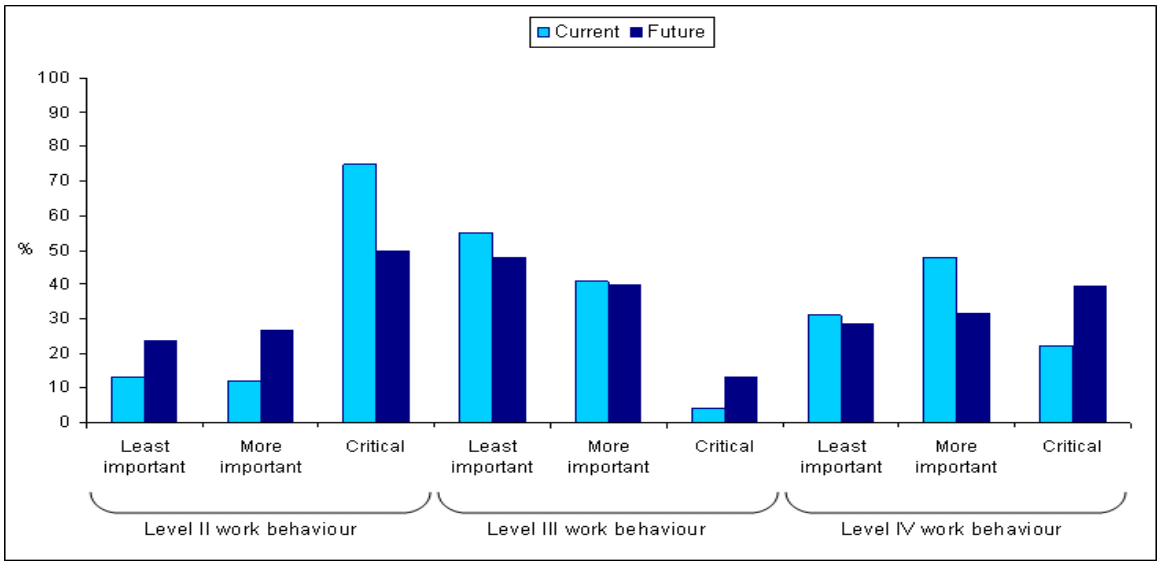
Figure 31: Organisational Resilience – Item 5



<u>Item 6 – Change processes</u>

Significantly (p≤0.05) less respondents classified Level II work behaviour as critical for the future than for the current world of work. Level III work behaviour showed increased importance, with significantly (p≤0.05) more respondents stating that it is critical for future business leaders. The perceived importance of Level IV work behaviour also increased significantly (p≤0.05) with only 22% of respondents classifying it as critical for the current world of work, but 40% classifying it as critical for the future. Therefore it can be concluded that there is a perceived difference between the current and future definition of the work and nature of business leaders.

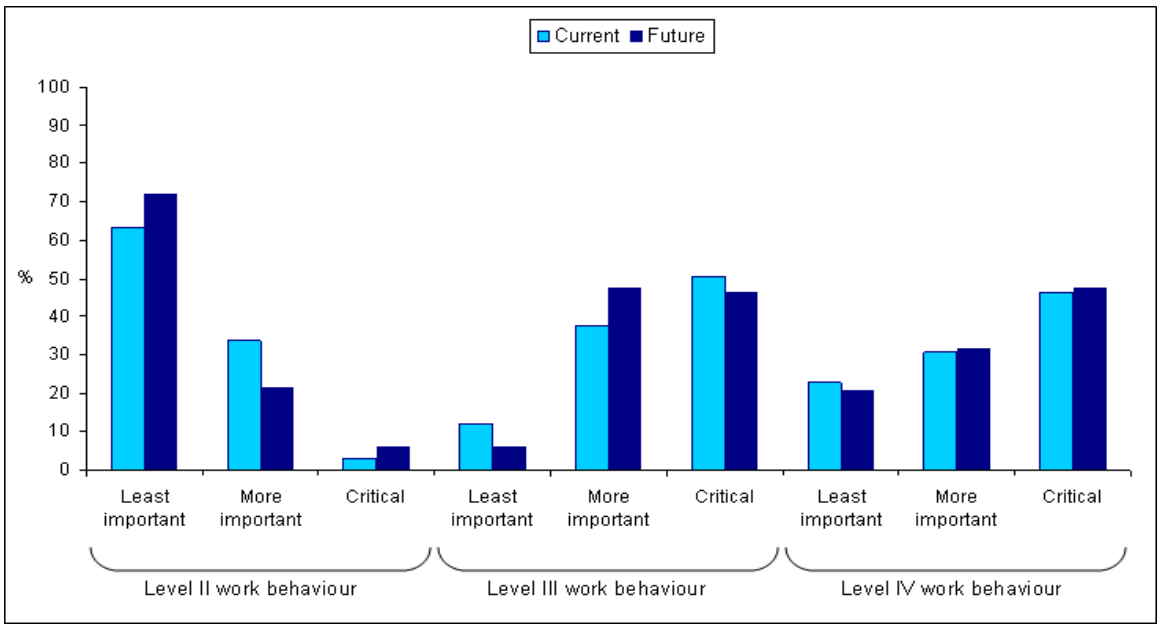
Figure 32: Organisational Resilience – Item 6



Item 7 – Change behaviour

From the data analysis it can be seen that there is not a distinct difference between the perceived current and future definition of work. However, Level II work behaviour was classified as least important by 63% for the current world of work and 72% for the future world of work. Level IV work behaviour showed small increases in importance, although not significant. This could be due to the fact that the South African retail industry has undergone significant changes in the past 10 years (refer to Chapter 4) and therefore organisational resilience in terms of change strategy is already of perceived importance.

Figure 33: Organisational Resilience – Item 7



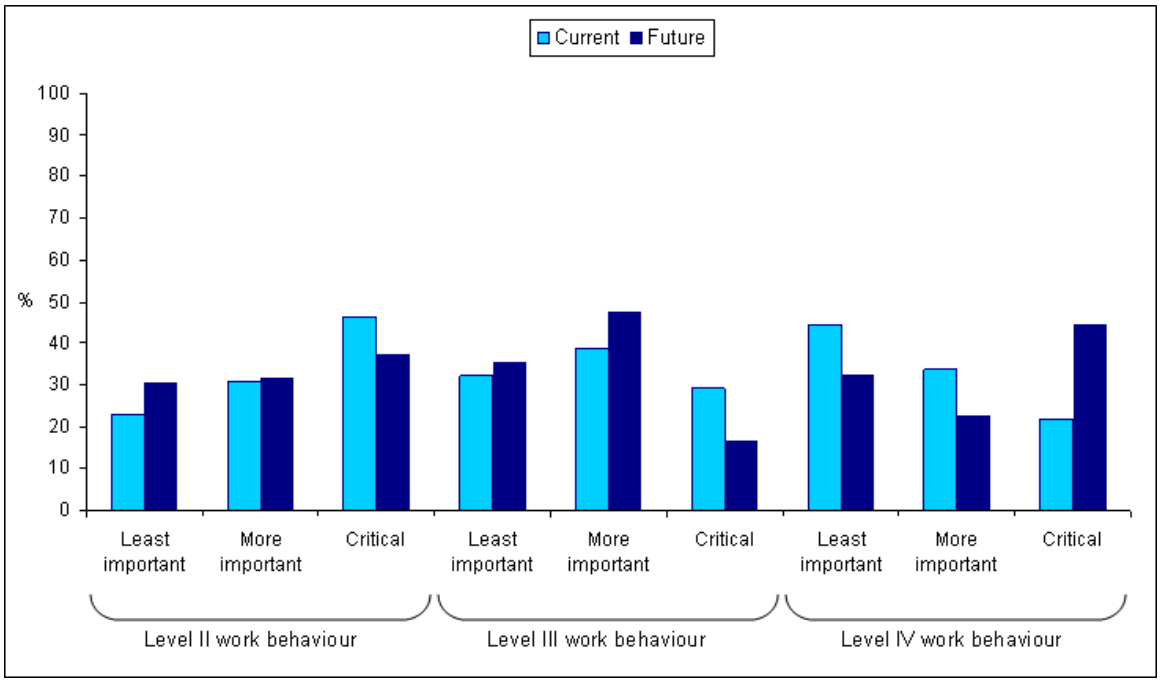
It can therefore be concluded that, although only Item 1 shows a clear distinction between the current and future definitions, it is still clear that Level IV work behaviour is perceived to be the most important for future business leaders with regard to **Organisational Resilience**.

3.1.4. Competence: Technical Competence

Item 8 – Competence utilisation

Figure 34 below indicates a clear difference between the current and future definition of the work and nature of business leaders. The importance of Level II work behaviour showed slight decreases from current to future definitions, although not significant. Using the z-test it was found that significantly ($p \leq 0.05$) less respondents perceived Level III work behaviour to be critical and a significantly ($p \leq 0.05$) larger proportion of respondents perceived Level IV work behaviour to be critical for the future.

Figure 34: Technical Competence – Item 8

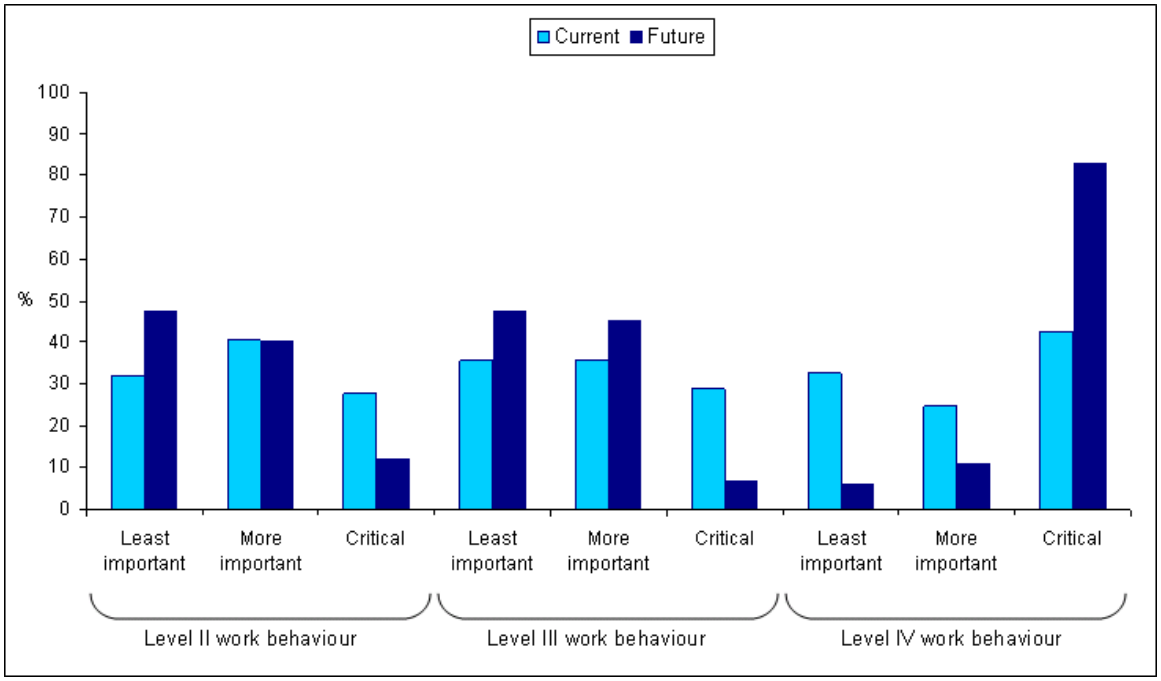


Item 9 – Time spent

48% of respondents stated that Level II work behaviour is least important for future business leaders, while only 12% stated that it is critical, which leads to the conclusion that Level II work behaviour is perceived to more important for the current world of work than it will be for the future. Significantly ($p \leq 0.05$) less

respondents classified Level III work behaviour as critical for the future than for the current work environment, but Level III work behaviour still remains more important than Level II work behaviour. Level IV work behaviour shows significant ($p \leq 0.05$) increases in importance from the current to the future definition. This indicates a very clear difference between the perceived current and future definition of work.

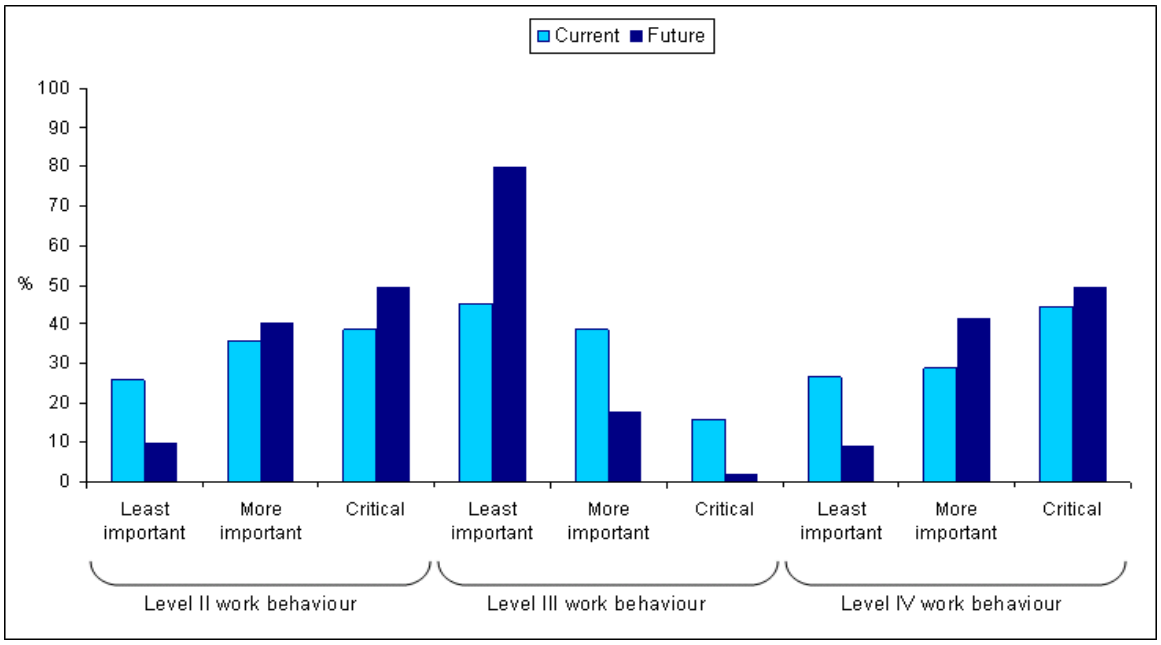
Figure 35: Technical Competence – Item 9



Item 10 – Areas of responsibility

In Figure 36 the perceived importance of Level III work behaviour shows a significant decline. Level IV work behaviour however shows a significant ($p \leq 0.05$) increase in perceived importance. The majority of respondents perceive Level IV work behaviour to become critical for current and future worlds of work (current 45% vs. future 50%). The perceived importance of Level II work behaviour remained consistent between the current and future definitions.

Figure 36: Technical Competence – Item 10



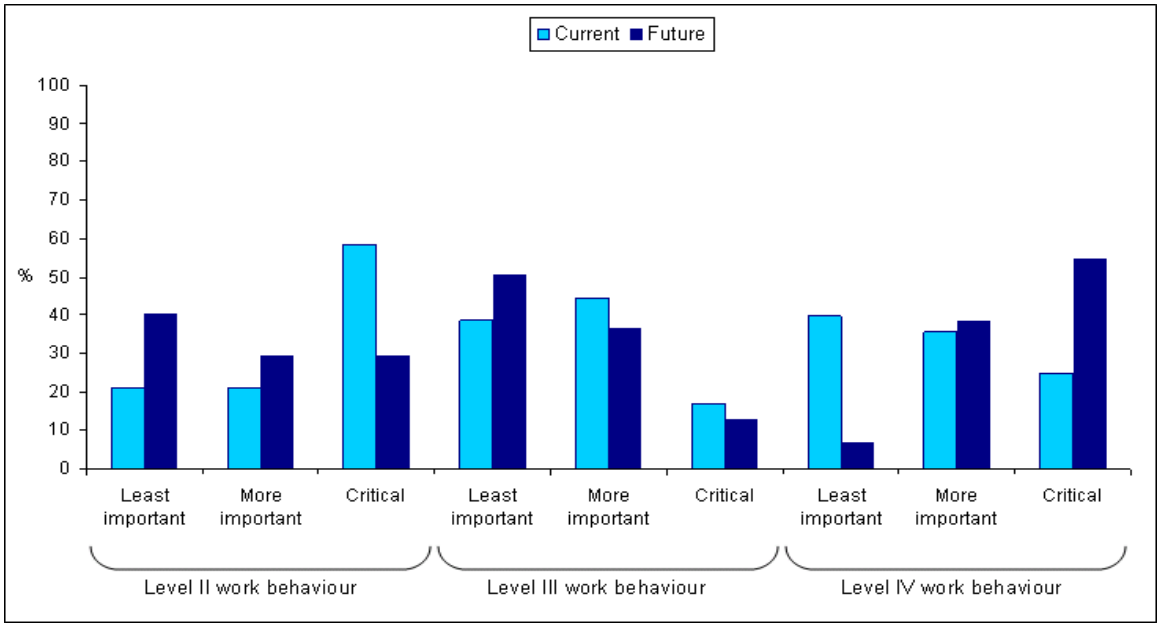
It can therefore be concluded that, with regard to **Technical Competence**, there is a perceived difference between the current and future definition of the work and nature of business leaders where Level IV work behaviour will play an increasingly important role in the future.

3.1.5. Competence: Customer Orientation

Item 11 – Customer service

From the data analysis and Figure 37 it can be seen that there is a clear difference between the perceived current and future definition of work. Level II work behaviour shows a significant ($p \leq 0.05$) decline in importance from the current to the future world of work. The importance of Level III work behaviour also decreased from the current to the future world, although not significantly. Level IV work behaviour showed a significant ($p \leq 0.05$) increase in importance for the future business leader, with only 25% of respondents classifying it as critical for the current world of work compared to the 54% who classified it as such for the future world of work.

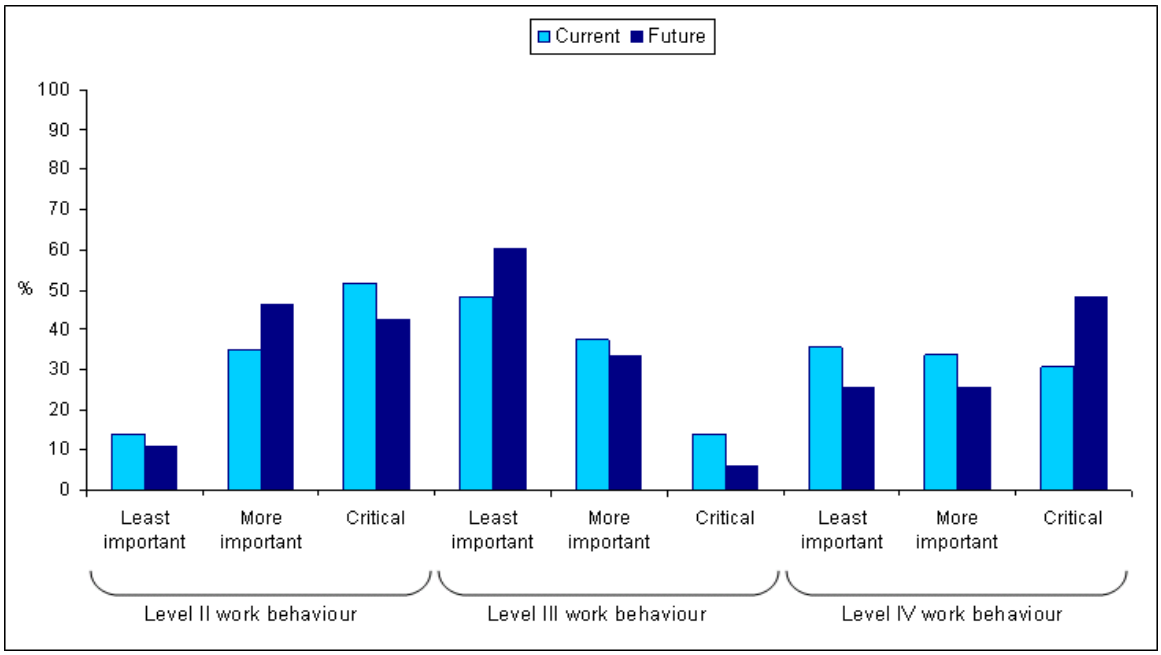
Figure 37: Customer orientation – Item 11



Item 12 – Customer information gathering

In Item 12 Level II and III work behaviour showed declines in importance from the current to the future definitions, although these differences are not significant. Using the z-test it was found that significantly ($p \leq 0.05$) more respondents perceive Level IV work as critical for the future than for the current world of work (current 31% vs. 49%). This indicates a perceived difference between the current and future definition of the work and nature of business leaders.

Figure 38: Customer orientation – Item 12

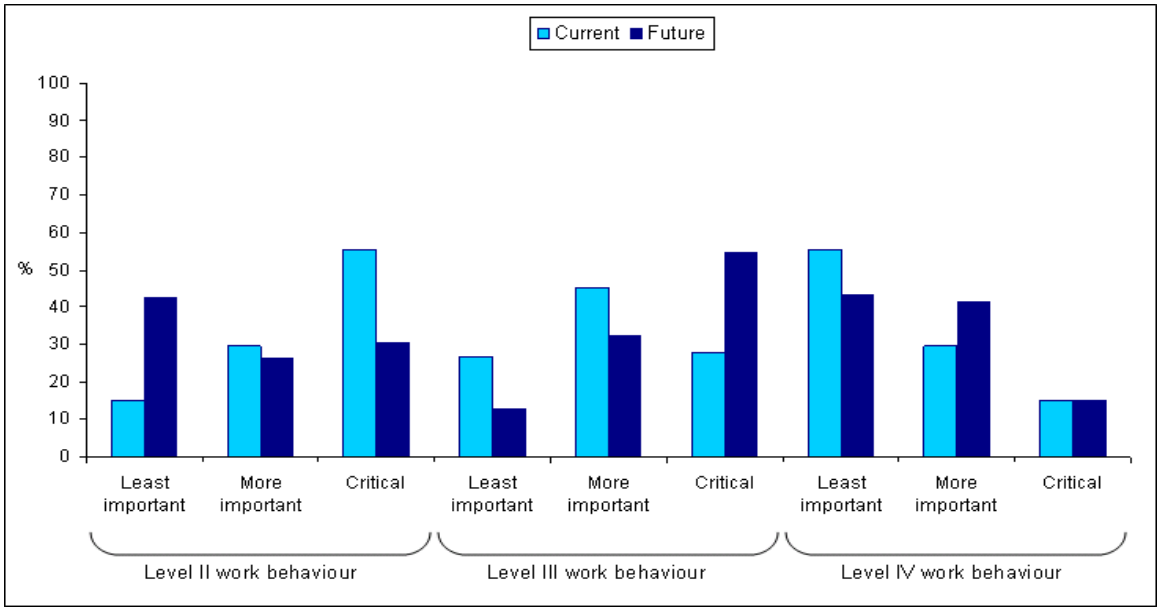


Item 13 – Customer orientation

Figure 39 illustrates that the importance of Level II work behaviour has decreased from the current to the future world of work. There is also a significant ($p \leq 0.05$) difference between respondents classifying it as critical (current 55% vs. future 31%). Level III work behaviour showed a significant increase in the perceived importance from the current to the future world of work. An increase in importance of Level IV work behaviour is also evident in the data, although this is not significant.

It can be argued that Retail leaders with regards to this item view the importance of customer service delivery (Level III work) higher for the future than Level IV work, because of the fact that customer service is the most significant differentiator in the world of South African retail

Figure 39: Customer orientation – Item 13



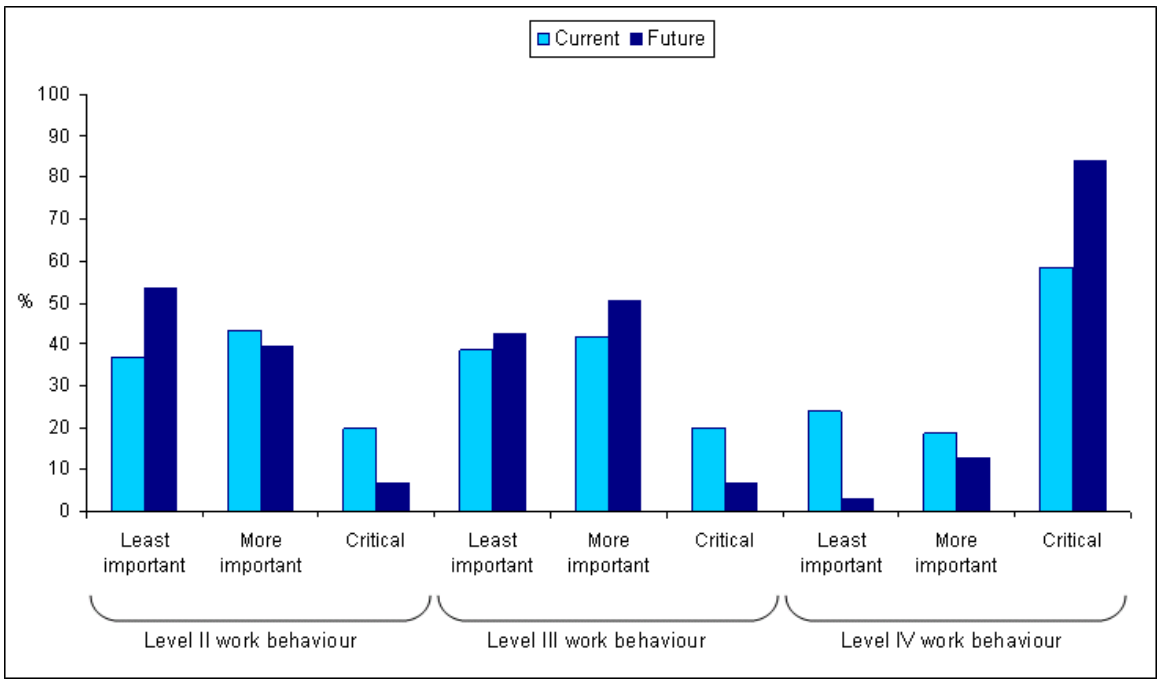
Even though difference reported in most instances is not significant it can be concluded that Level IV work behaviour is perceived to be critical for future business leaders with regard to **Customer Orientation**. Level III work behaviour will also be important, but less so than Level IV.

3.1.6. Competence: Business Acumen

Item 14 – Business challenges

There is a perceived difference between the current and future definition of the work and nature of business leaders (Figure 40). Using the z-test it was determined that Level II work behaviour showed a significant ($p \leq 0.05$) decrease in importance from current to future worlds of work. The importance of Level IV work behaviour showed a significant increase between the current and future definitions, with 58% of respondents classifying it as critical for the current world of work compared to the 84% classifying it as such for the future world.

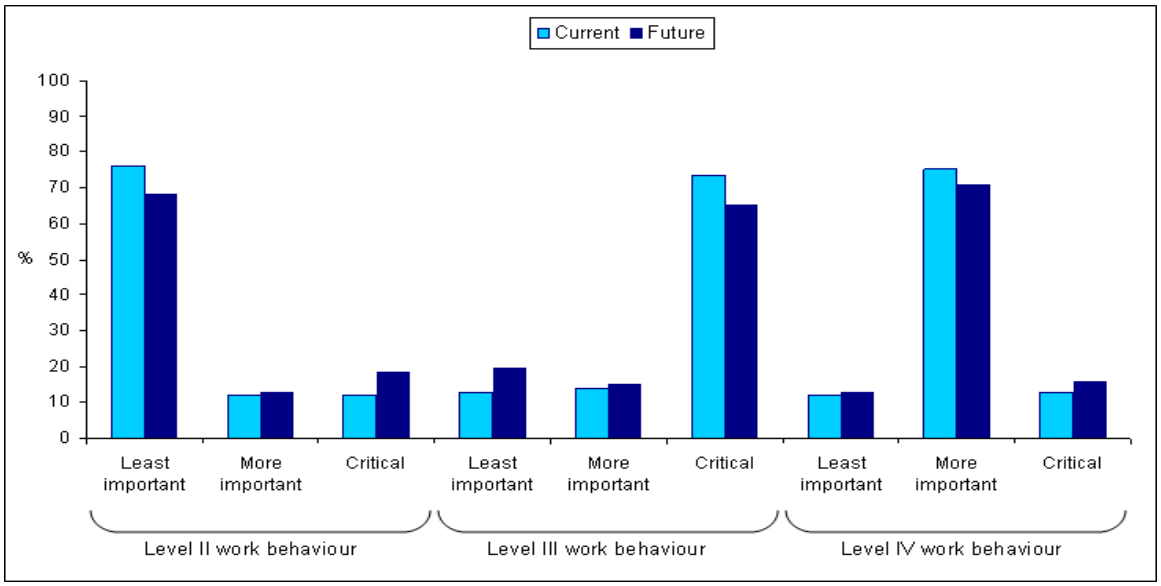
Figure 40: Business Acumen – Item 14



Item 15 – Timeframe until work results is known

From the data analysis and Figure 41 on the following page it can be seen that there is no distinct difference between the perceived current and future definition of the work and nature of business leaders. However, it is still evident that Level II work behaviour is perceived to be least important for the future definition, and Level III and Level IV work behaviour is perceived to be more important for the future business leader.

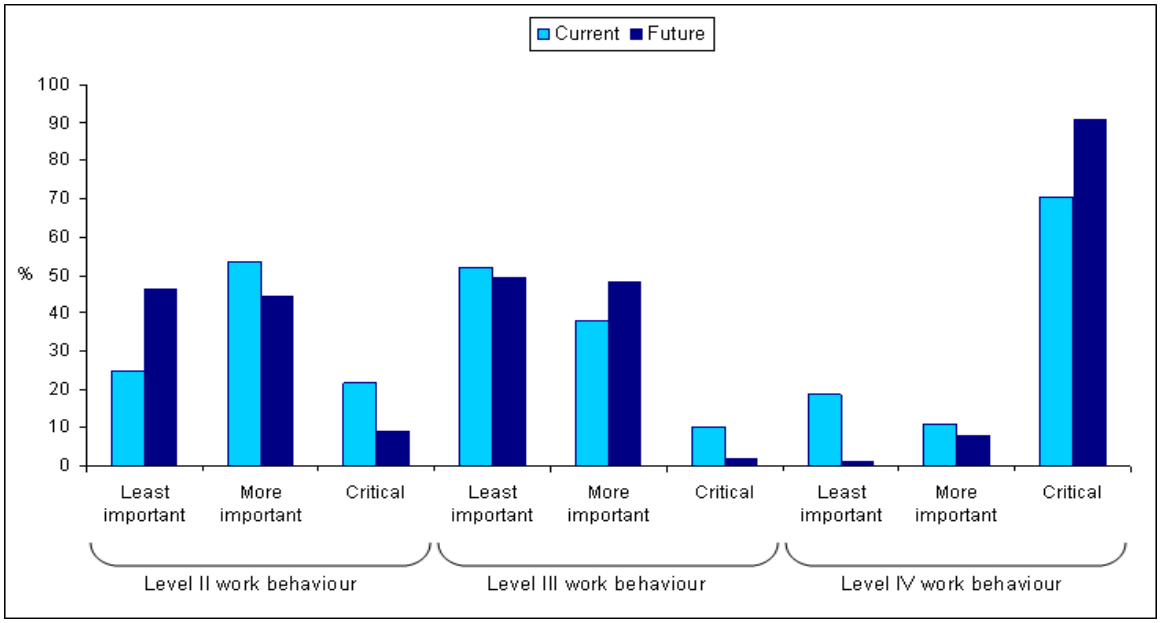
Figure 41: Business Acumen – Item 15



Item 16 – Areas of challenges

Level II work behaviour showed a significant ($p \leq 0.05$) decline in importance from the current to the future world of work. Significantly ($p \leq 0.05$) less respondents classified Level III work behaviour as critical for the future. There is also a significant difference between the perceived importance of Level IV work behaviour in the current and future worlds. This indicates a distinct perceived difference between the current and future definition of business leadership competence.

Figure 42: Business Acumen – Item 16



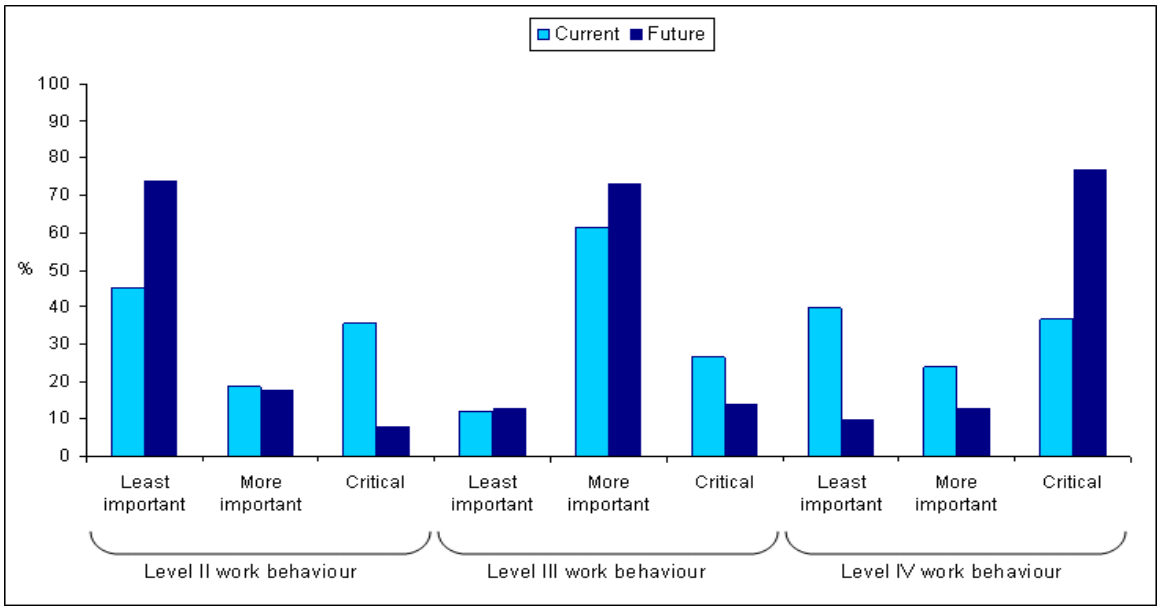
It can therefore be concluded that, with regard to **Business Acumen**, Level II work behaviour is perceived to be least important for the future business leader. Level III and IV work behaviour is perceived to play the most important role in the future definition of the work and nature of business leaders, with Level IV work behaviour being critical.

3.1.7. Competence: Learning and Knowledge Networking

Item 17 – Method of learning and development

The participants in the research indicated that Level II work behaviour will be significantly ($p \leq 0.05$) less important in the future world of work. Significantly fewer respondents stated that Level III work is critical for the future than the current work environment (current 27% vs. future 14%), while 73% of respondents still see it as being more important for the future. The importance of Level IV work behaviour showed an increase from the current to the future definitions, with only 37% classifying it as critical for the current world of work compared to 77% classifying is as such for the future world of work.

Figure 43: Learning and Knowledge Networking – Item 17

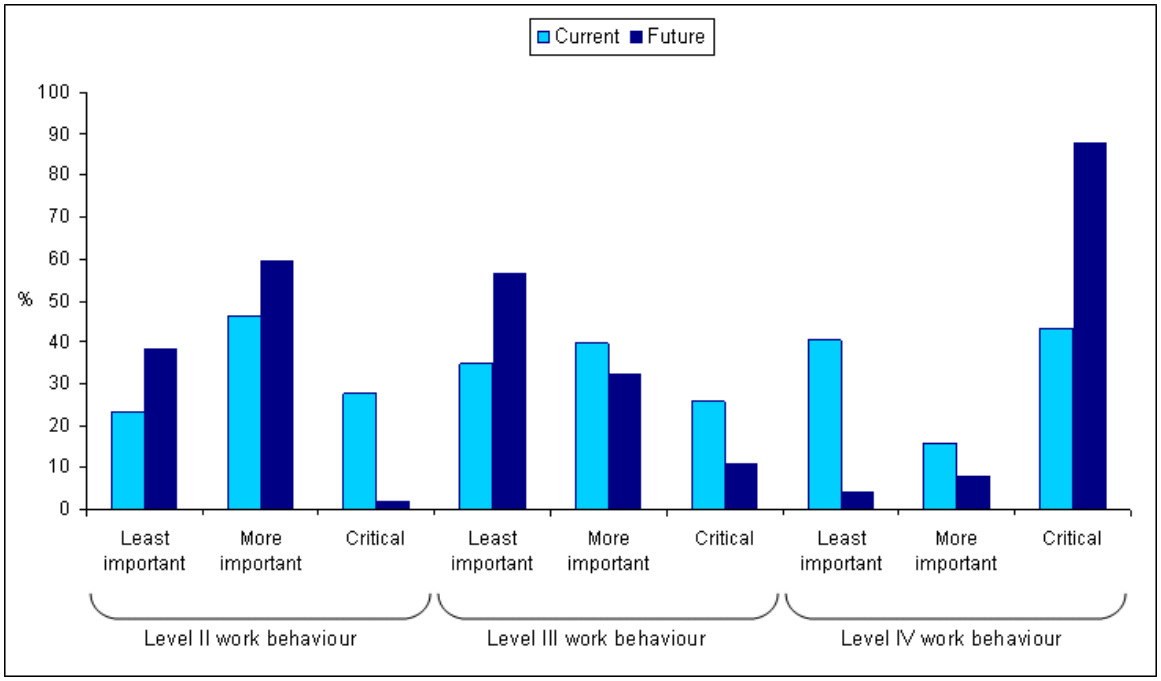


Item 18 – Content of organisational learning

From the data analysis and Figure 44 on the following page it can be seen that there is a distinct perceived difference between the current and future definition of the work and nature of business leaders. The importance of Level II work

behaviour decreased from the current to the future definition, with significantly ($p \leq 0.05$) more respondents classifying it as least important for the future than the current world of work. Level III work behaviour also has decreased importance in the future world of work, being classified as least important by 35% of respondents for the current and 56% for the future work environment. There were significant differences ($p \leq 0.05$) between the proportion of respondents classifying Level IV work behaviour as least important (current 41% vs. future 4%) and critical (current 44% vs. future 88%).

Figure 44: Learning and Knowledge Networking – Item 18



It can therefore be concluded that there is a clear and distinct difference between the perceived current and future definitions. Level IV work behaviour is perceived to be of critical importance for the future definition of the work and nature of business leaders. Level III work behaviour will play a less important role, and Level II will be least important.

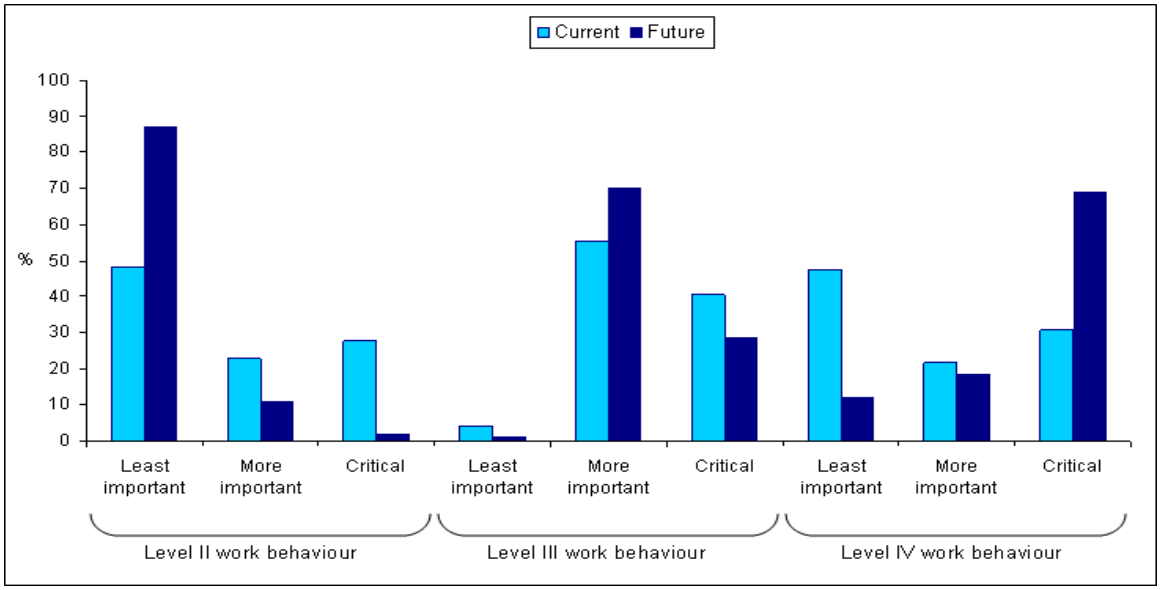
3.1.8. Competence: Taking Action

Item 19 - Problem solving

The research participants indicated a distinct perceived difference between the current and future definition of the work and nature of business leaders (Figure 45). Using the z-test it was found that the importance of Level II work behaviour

showed a significant (p≤0.05) decline from the current to the future world of work. Significantly (p≤0.05) fewer respondents stated that Level III work behaviour is critical for the future than the current. Level IV work behaviour is perceived to be significantly more important for the future world of work than for the current work environment, with only 31% classifying it as critical for the current world compared to 69% classifying it as such for the future world of work.

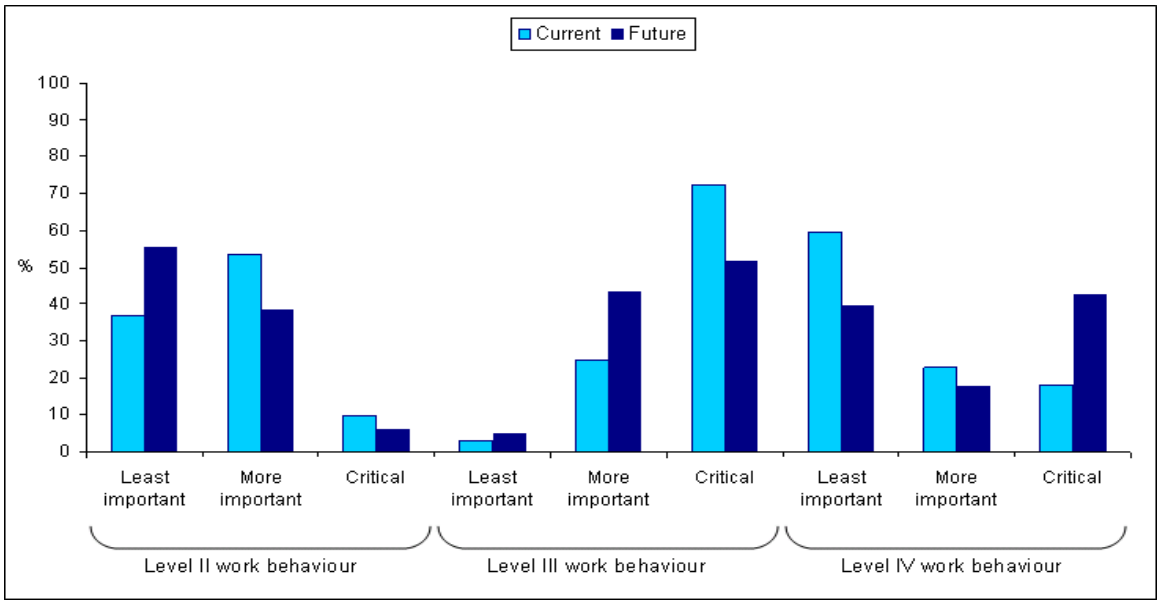
Figure 45: Taking Action – Item 19



Item 20 - Decision making

It is evident from the data analysis that there is a clear difference between the perceived current and future definition of the work and nature of business leaders. Level II work behaviour was classified as least important for the future world of work by a significantly larger proportion of respondents than for the current world of work. Significantly fewer respondents stated that Level III work behaviour is critical for the future world than for the current world (current 72% vs. future 52%). The importance of Level IV work behaviour showed a significant decline from the current to the future world of work, with only 18% of respondents classifying it as critical for the current work environment compared to the 43% classifying is as such for the future work environment.

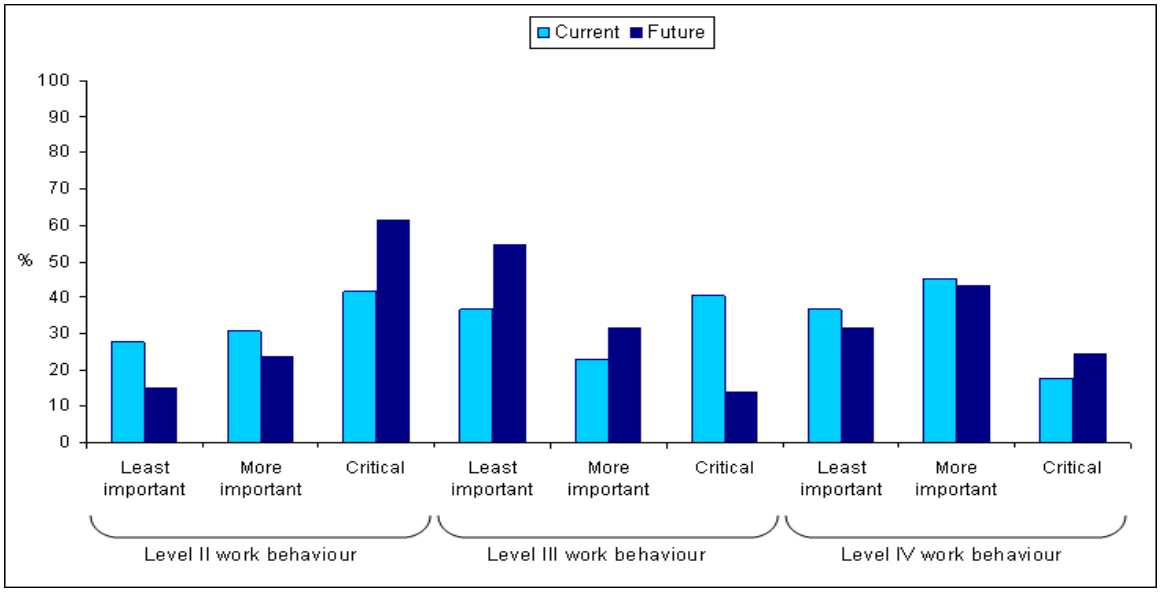
Figure 46: Taking Action – Item 20



Item 21 - Leadership style

In Item 21 the importance of Level II work behaviour showed a significant (p≤0.05) increase from the current to the future world of work. Level III work behaviour showed a significant (p≤0.05) decline in importance between the current and future definitions. There was a slight increase in the respondents who classified Level IV work behaviour as critical for the current and future worlds of work, but this difference was not significant (current 18% vs. future 25%). From Figure 47 it can be seen that there is a perceived difference between the current and future definition of the work and nature of business leaders.

Figure 47: Taking Action – Item 21



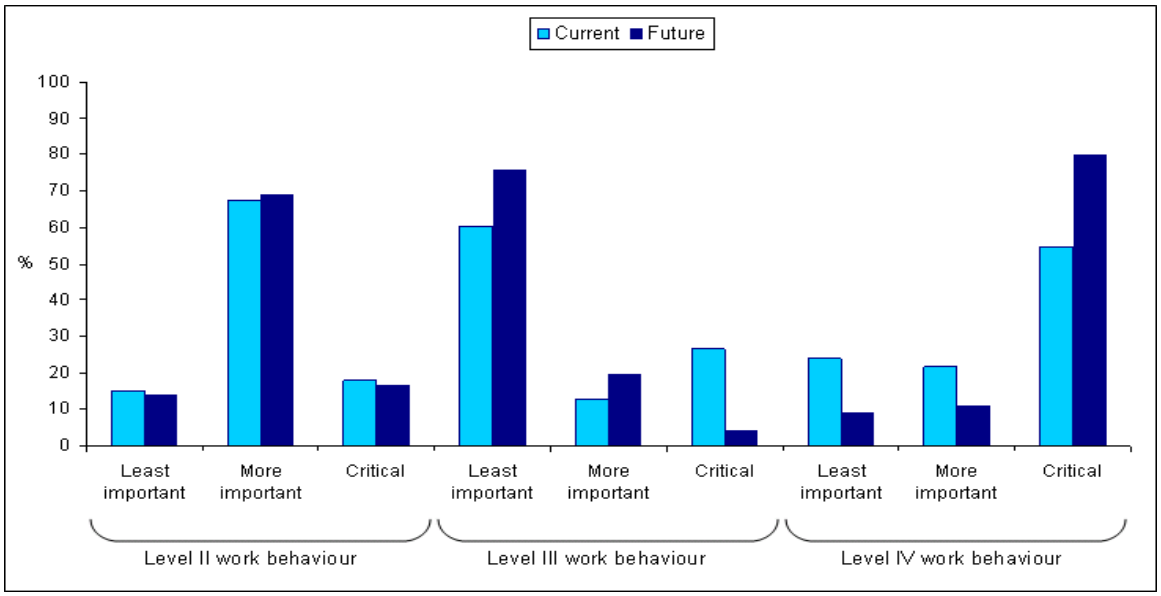
It can therefore be concluded that, with regard to **Taking Action**, Level IV work behaviour is perceived to play a critical role in the future world of work, with Level III work behaviour playing a less important role and Level II work behaviour playing the least important role.

3.1.9. Competence: Influencing Others

Item 22 – Method of influence

The data analysis (Figure 48) indicates a clear difference between the perceived current and future definition of the work and nature of business leaders. The importance of Level II work behaviour remained consistent for the current and future definitions. However, Level III work behaviour will be significantly ($p \leq 0.05$) less important in the future than the current world or work, with only 4% of respondents classifying it as critical in future compared to the 27% classifying it as critical in the current work environment. Using the z-test it was determined that significantly ($p \leq 0.05$) more respondents perceive Level IV work behaviour to become critical in the future world of work.

Figure 48: Influencing Others – Item 22

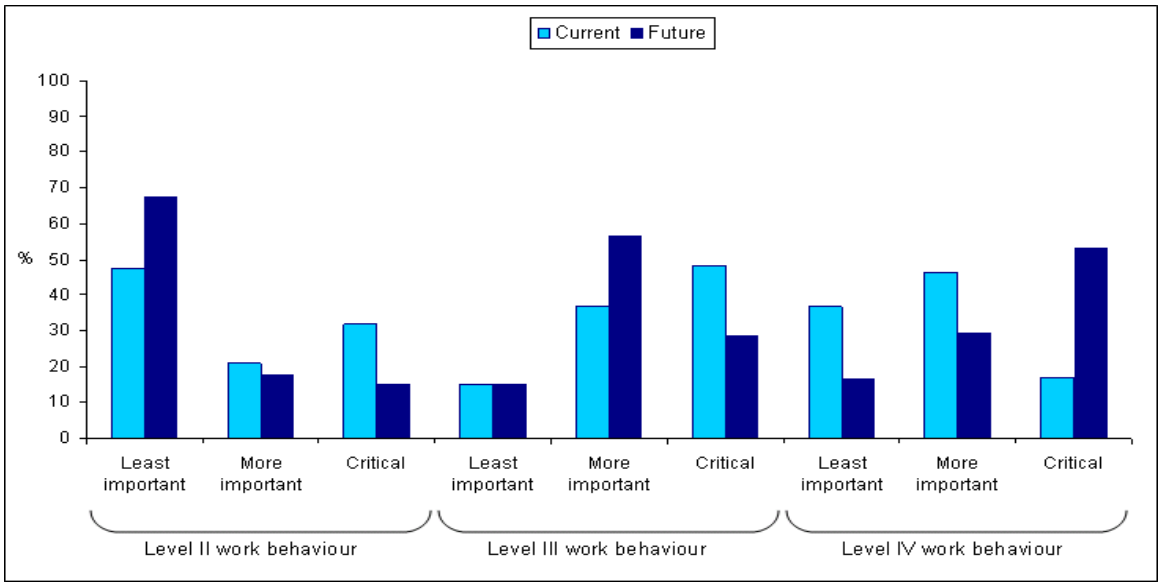


Item 23 - Approach towards people

The importance of Level II work behaviour shows a significant ($p \leq 0.05$) decrease from the current to the future world of work, with 67% of respondents classifying it as least important for the future and 48% classifying it as such for the current world (Figure 49). Significantly ($p \leq 0.05$) fewer respondents stated that Level III

work behaviour is critical for the future than the current world of work. Level IV work behaviour will be significantly more important in the future than in the current world, with only 17% of respondents classifying it as critical in the current world and 55% classifying it as such in the future world of work. It can be concluded that there is a distinct perceived difference between the current and future definition of the work and nature of business leaders for Item 23.

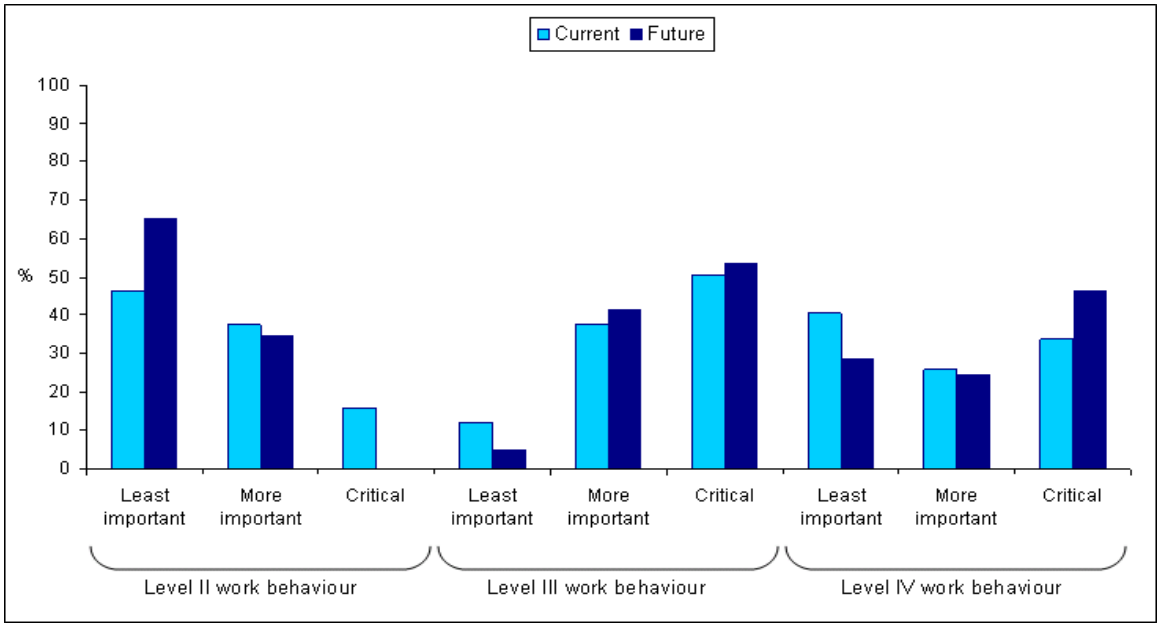
Figure 49: Influencing Others – Item 23



Item 24- Areas of importance

From the data analysis and Figure 50 it can be seen that there is a difference between the perceived current and future definition of the work and nature of business leaders, even though this difference is not significant. Level II work behaviour is perceived to become significantly less critical in the future than it is in the current world of work, with 65% of respondents seeing it as least important. The importance of Level III work behaviour remained consistent between the current and future definitions. The majority of respondents perceived Level IV work behaviour to be critical for the future, although this is not significantly more than those who classified it as such for the current world (current 34% vs. future 47%).

Figure 50: Influencing Others – Item 24



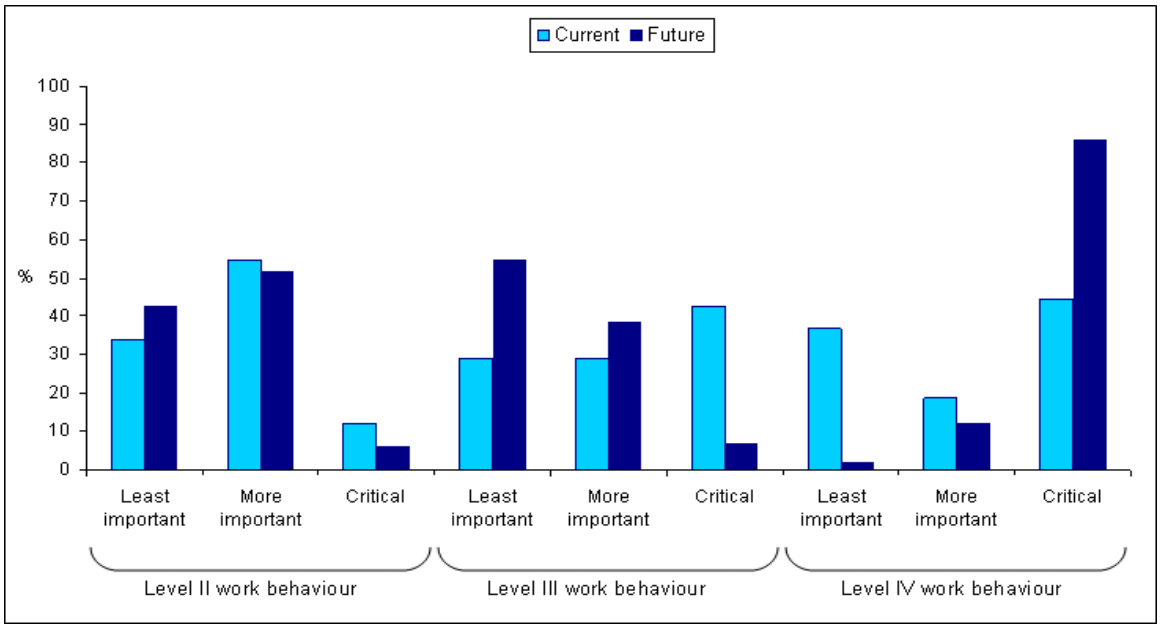
It can therefore be concluded that there is a clear difference between the perceived current and perceived future definitions of the work and nature of business leaders, with Level IV work behaviour being critical, Level III work behaviour being less important and Level II being least important for the future business leader in terms of **Influencing Others**.

3.1.10. Competence: Information Processing

Item 25 – Method of processing

Item 25 indicates a perceived difference between the current and future definition of the work and nature of business leaders. Level II work behaviour is perceived to be less important in the future world. The importance of Level III work behaviour also shows a decline from the current to future world, with 55% of respondents classifying it as least important for the future and 29% classifying it as such for the current world of work. The z-test indicated that significantly ($p \leq 0.05$) more respondents perceive Level IV work behaviour to become more critical in the future (current 45% vs. 86%).

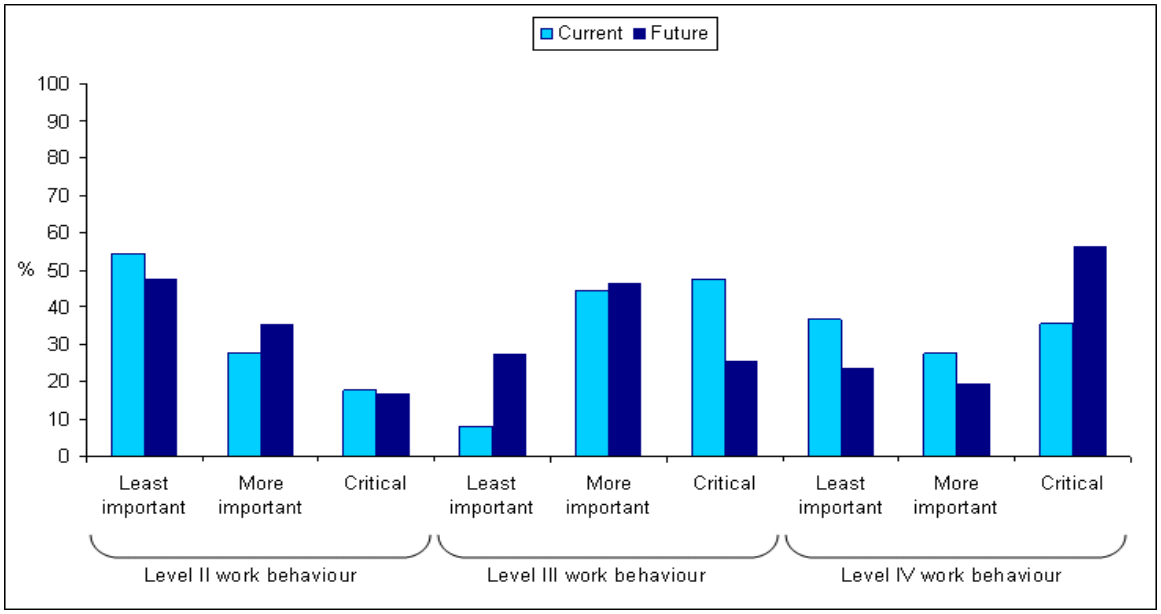
Figure 51: Information Processing – Item 25



Item 26 – Kind of information

With regards to Item 26, Figure 52 indicates that Level II work behaviour will be less important in the future world. The importance of Level III work behaviour also shows a decline from the current to future world. Significantly ($p \leq 0.05$) more respondents stated that Level IV work behaviour is critical for the future than for the current work environment. This implies that there is a distinct perceived difference between the current and future definition of the work and nature of business leaders.

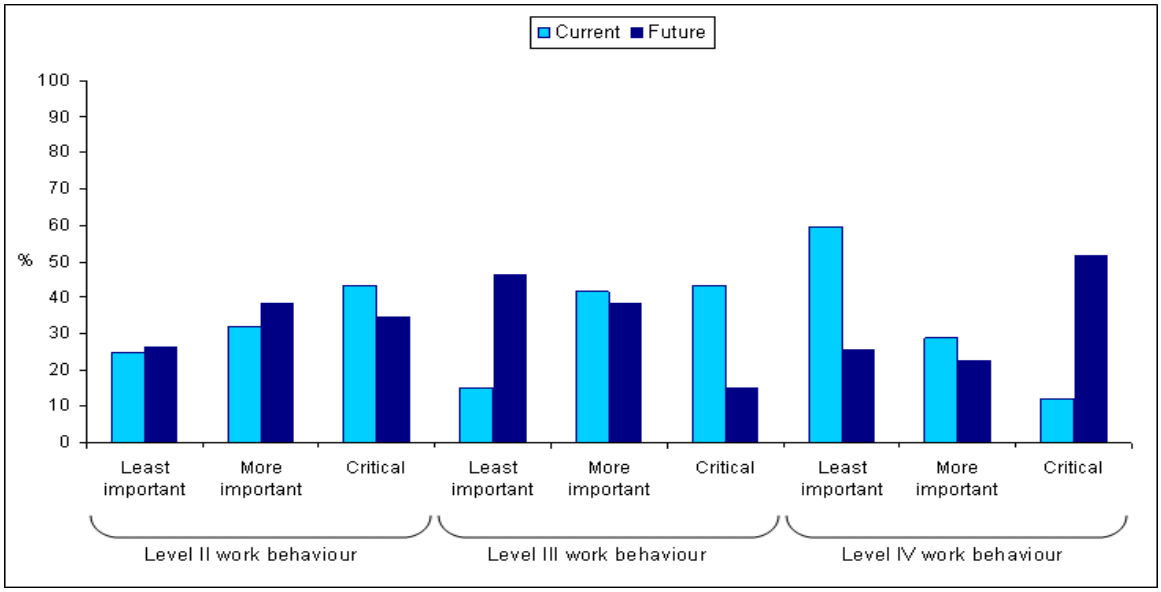
Figure 52: Information Processing – Item 26



Item 27 – Use of information

From the data analysis and Figure 53 it can be seen that there is a clear difference between the perceived current and future definition of the work and nature of business leaders. Level II work behaviour will be less important in the future world. The importance of Level III work behaviour also shows a decline from the current to future world, with 15% of respondents classifying it as least important for the future and 47% classifying it as such for the current world of work. Significantly ($p \leq 0.05$) more respondents stated that Level IV work behaviour is critical for the future than for the current work environment (current 12% vs. 52%).

Figure 53: Information Processing – Item 27



It can therefore be concluded that, with regard to information processing, Level IV work behaviour is perceived to play a more increasingly important role in the future definition of the work and nature of business leaders, with Level II and III decreasing in importance.

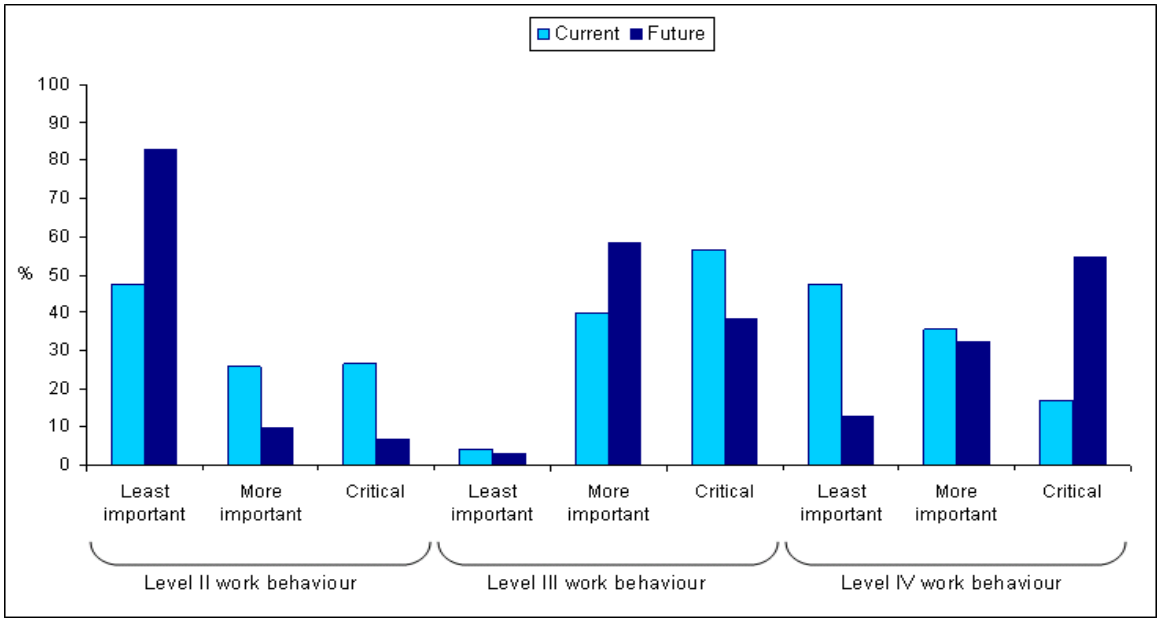
3.1.11. Competence: Contextual Competence

Item 28 – Work approach

In Item 28 the z-test indicated that the importance of Level II work behaviour showed a significant ($p \leq 0.05$) decline, with 83% of respondents classifying it as least important for the future and 48% classifying it as such for the current world of work. A significantly smaller proportion of respondents stated that Level III work behaviour would be critical for the future than the current work environment

(current 56% vs. future 39%). Level IV work behaviour would be significantly (p≤0.05) more critical in future than in the current world (current 17% vs. future 55%). It is clear that there is a distinct difference between the perceived current and future definition of the work and nature of business leaders.

Figure 54: Contextual Competence – Item 28

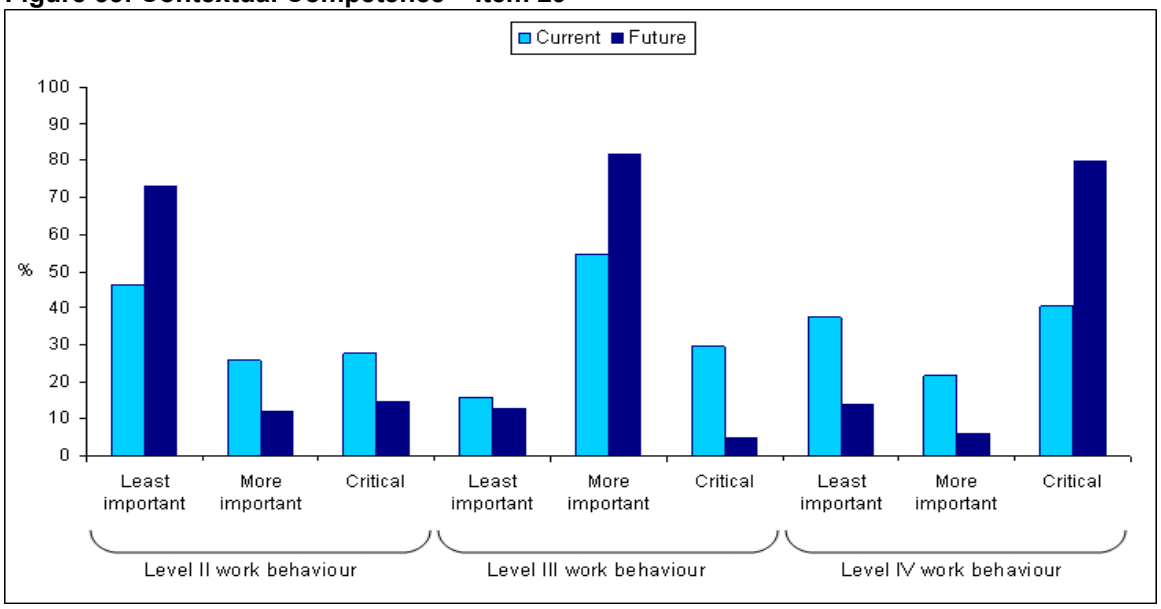


Item 29 – Work methods

Figure 55 on page 234 illustrates that the importance of Level II work behaviour decreased significantly, with 73% of respondents classifying it as least important for the future world of work. A significantly smaller proportion of respondents stated that Level III work behaviour would be critical for the future than the current work environment. Level IV work behaviour would be significantly (p≤0.05) more critical in future than in the current world (current 41% vs. future 80%).

The data analysis indicates a distinct difference between the perceived current and future definition of the work and nature of business leaders.

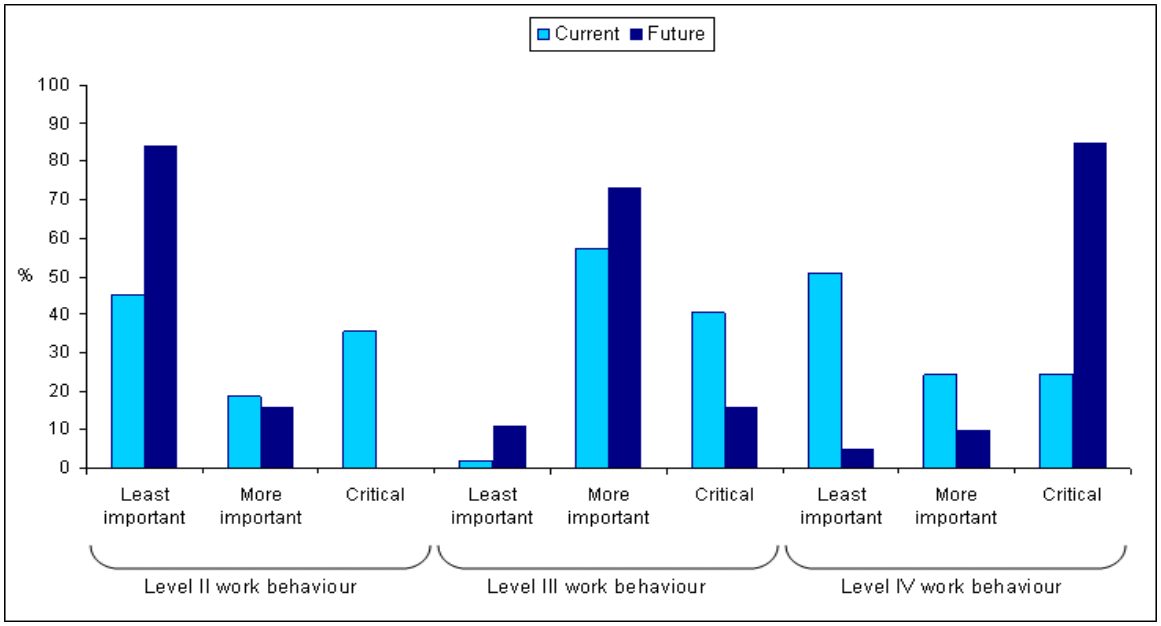
Figure 55: Contextual Competence – Item 29



Item 30 – Work focus area

From the data analysis and Figure 56 it can be seen that there is a distinct difference between the perceived current and future definition. The importance of Level II work behaviour decreased significantly, with 84% of respondents classifying it as least important for the future. A significantly ($p \leq 0.05$) smaller proportion of respondents stated that Level III work behaviour would be critical for the future than the current work environment (current 41% vs. future 16%). Level IV work behaviour would be significantly ($p \leq 0.05$) more critical in future than in the current world (current 25% vs. future 85%).

Figure 56: Contextual Competence – Item 30



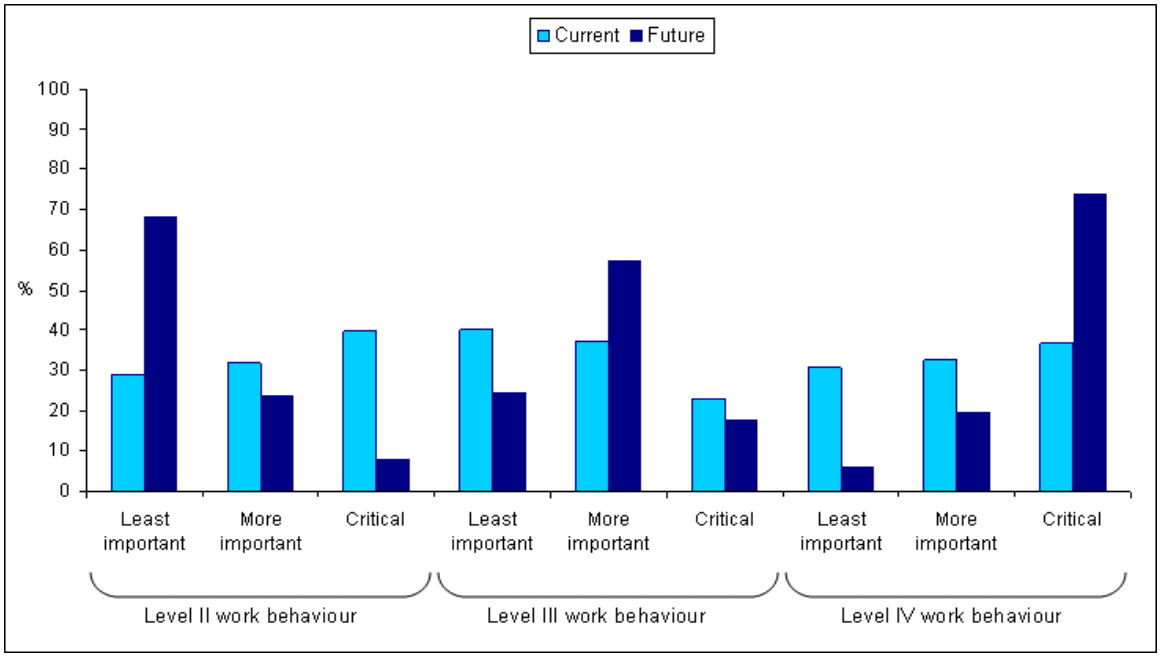
It can therefore be concluded that there is a clear and distinct difference between the perceived current and future definitions of the work and nature of business leaders. Level IV work behaviour is perceived to form a critical part of the future business leader meta-competences, with Level II and III playing less important roles.

3.1.12. Competence: Talent Management

Item 31 – Expression of talent

In Figure 57 it can be seen that there is a clear difference between the perceived current and future definitions. The importance of Level II work behaviour showed a significant ($p \leq 0.05$) decline, with 68% of respondents classifying it as least important for the future and only 29% classifying it as such for the current world of work. A significantly larger proportion of respondents stated that Level III work behaviour would be more important for the future than the current work environment (current 37% vs. future 57%). The participants in the research indicated that Level IV work behaviour would be significantly more critical in future than in the current world (current 37% vs. future 74%), with only 6% of respondents stating that it is least important.

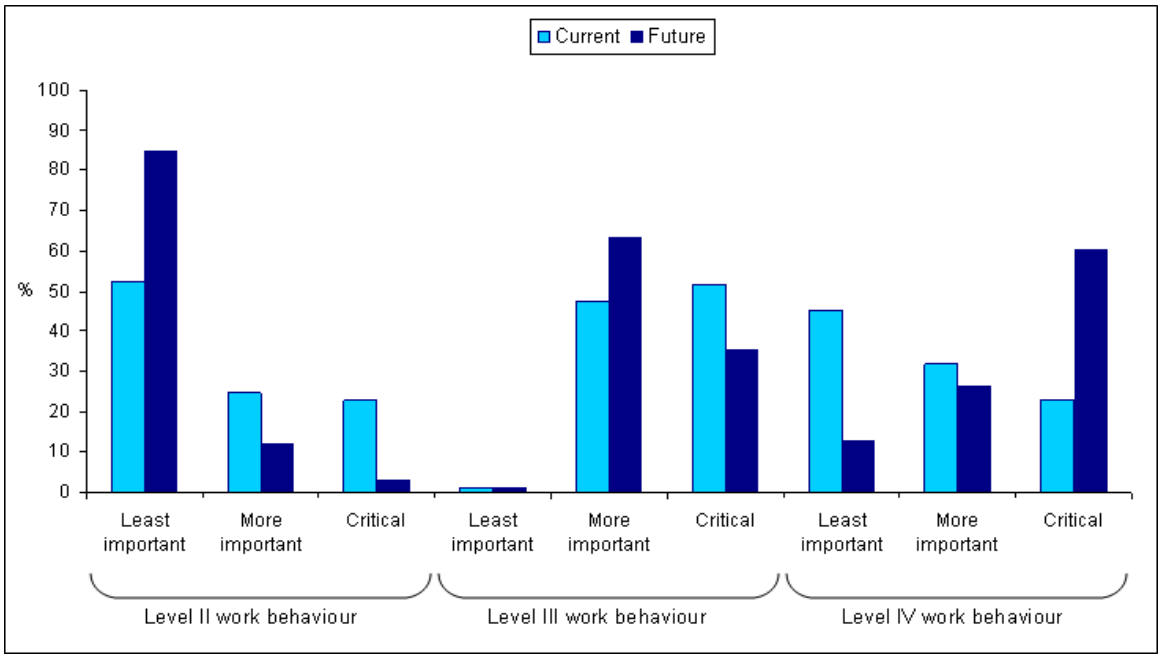
Figure 57: Talent Management – Item 31



Item 32 – Purpose of talent management

The participants in the research indicated a distinct difference between the perceived current and future definition. The importance of Level II work behaviour showed a significant (p≤0.05) decline, with 53% of respondents classifying it as least important for the current and 85% classifying it as such for the future world of work. A significantly larger proportion of respondents stated that Level III work behaviour would be more important for the future than the current work environment (current 48% vs. future 63%). Level IV work behaviour would be significantly more critical in future than in the current world (current 23% vs. future 60%).

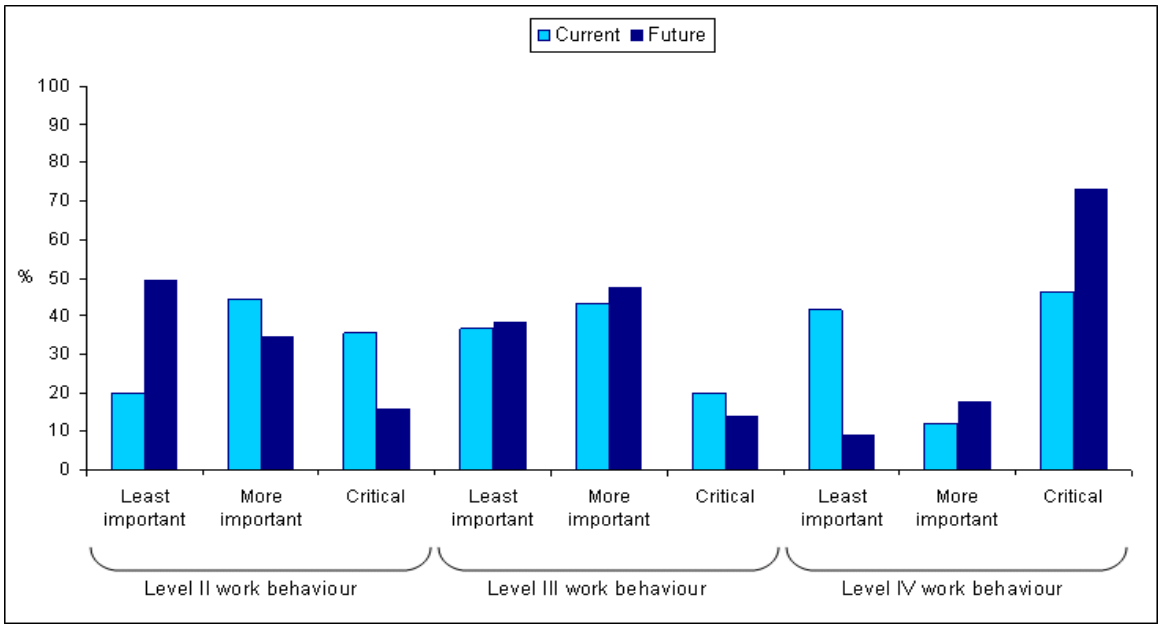
Figure 58: Talent Management – Item 32



Item 33 – Learning organisation

From the data analysis and Figure 59 it can be seen that there is a clear difference between the perceived current and future definition of the work and nature of business leaders. The importance of Level II work behaviour showed a significant (p≤0.05) decline, with 20% of respondents classifying it as least important for the current and 50% classifying it as such for the future world of work. The importance of Level III work behaviour remained consistent between the current and future definitions. The z-test indicated that Level IV work behaviour is perceived to be significantly (p≤0.05) more critical in future than in the current world (current 47% vs. future 73%).

Figure 59: Talent Management – Item 33



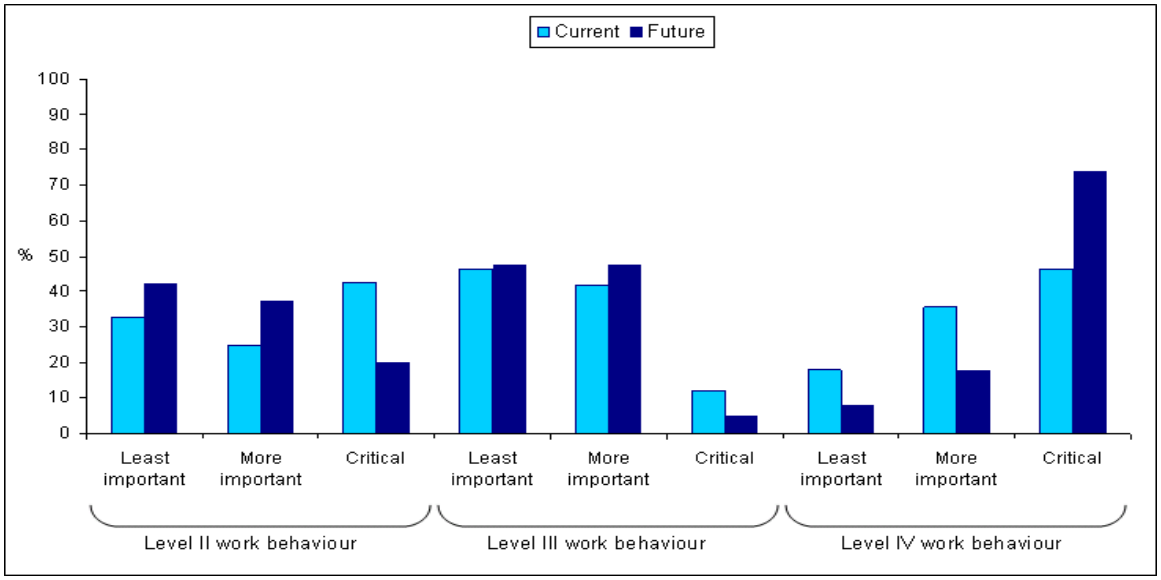
It can therefore be concluded that there is a difference between the perceived current and future definition of the work and nature of business leaders. Level IV work behaviour is perceived to play a critical role, with Level II and III playing a less important role.

3.1.13. Competence: Developing High Performing Teams

Item 34 – Creating a team environment

The data analysis (Figure 60) indicated a difference between the perceived current and future definition of the work and nature of business leaders. The importance of Level II work behaviour showed a significant ($p \leq 0.05$) decline, with 20% of respondents classifying it as critical for the future and 43% classifying it as such for the current world of work. The importance of Level III work behaviour remained consistent between the current and future definitions. Using the z-test it was found that Level IV work behaviour is perceived to be significantly ($p \leq 0.05$) more critical in future than in the current world (current 47% vs. future 74%).

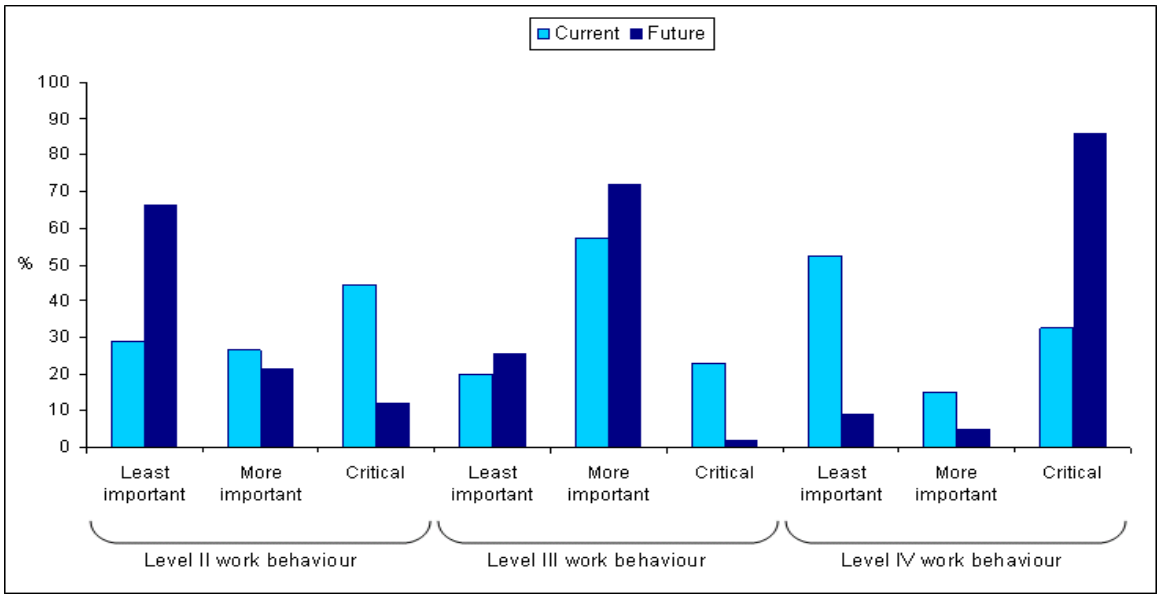
Figure 60: Developing High Performing Teams – Item 34



Item 35 – Developing teams

In Item 35 the importance of Level II work behaviour showed a significant (p≤0.05) decline, with 66% of respondents classifying it as least important for the future world. A significantly smaller proportion of respondents stated that Level III work behaviour would be critical for the future than the current work environment (current 23% vs. future 2%). Level IV work behaviour would be significantly (p≤0.05) more critical in future than in the current world. This indicates a clear difference between the perceived current and future definition of the work and nature of business leaders.

Figure 61: Developing High Performing Teams – Item 35



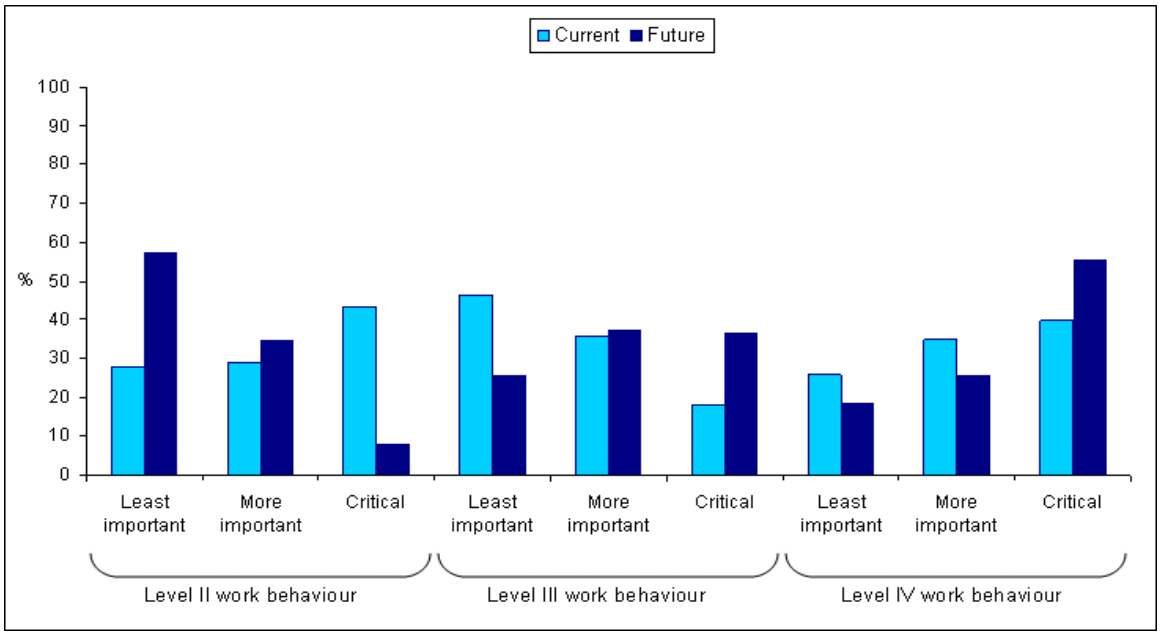
It can therefore be concluded that Level IV work behaviour is perceived to be critical for the future business leader meta-competences with regard **to Developing High Performing Teams**. Level II and III work behaviour will be less important.

3.1.14. Competence: Self-Insight

Item 36 – Strengths and weaknesses

The research participants indicated a distinct difference between the perceived current and future definition of the work and nature of business leaders (Figure 62). The importance of Level II work behaviour showed a significant decrease, with 57% of respondents classifying it as least important for the future and 28% classifying it as such for the current world of work. A significantly ($p \leq 0.05$) larger proportion of respondents stated that Level III work behaviour would be critical for the future than the current work environment (current 18% vs. future 37%). Level IV work behaviour would be significantly ($p \leq 0.05$) more critical in future than in the current world (current 40% vs. future 55%).

Figure 62: Self-Insight – item 36

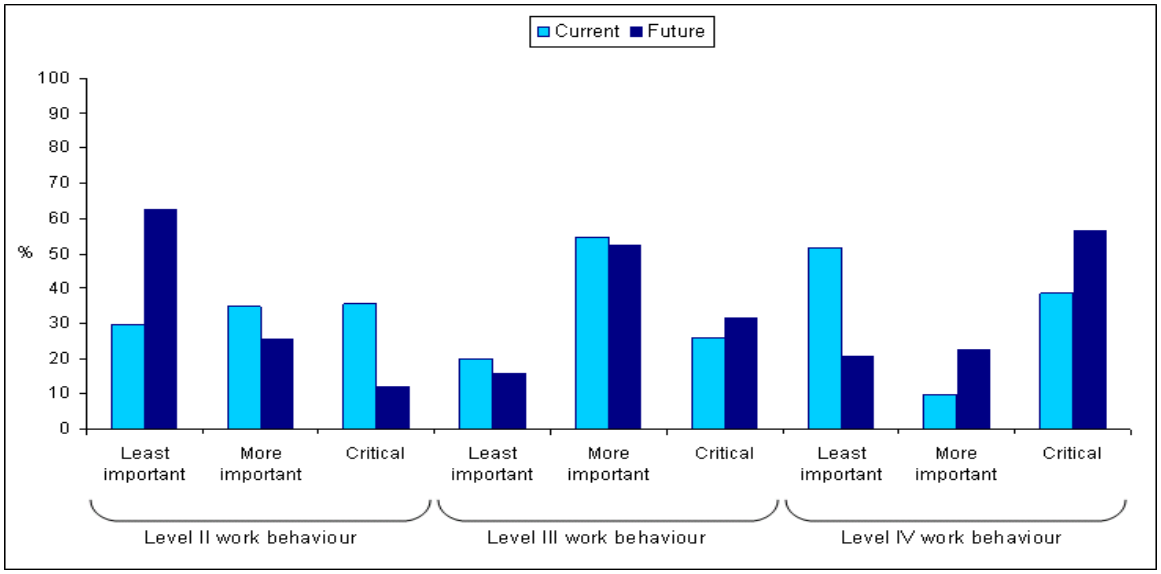


Item 37 – Capability alignment

From the data analysis and Figure 63 it can be seen that there is a clear difference between the perceived current and future definition of the work and nature of business leaders. The perceived importance of Level II work behaviour showed a

significant decrease, with 62% of respondents classifying it as least important for the future and 30% classifying it as such for the current world of work. The importance of Level III work behaviour remained consistent between the current and future definitions. The z-test indicated that Level IV work behaviour is perceived to be significantly ($p \leq 0.05$) more critical in future than in the current world (current 39% vs. future 56%).

Figure 63: Self-Insight – item 37



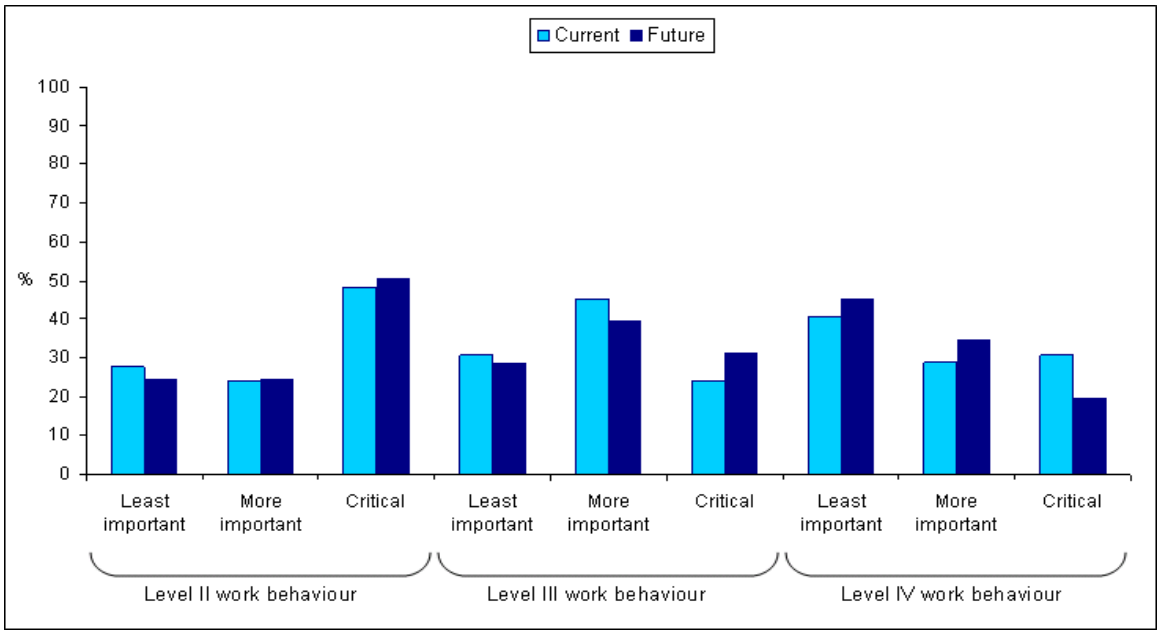
It can therefore be concluded that there is a clear and distinct difference between the perceived current definition of the work and nature of business leaders and the future business leader meta-competences with regard to **Self Insight**, where Level IV will play a critical role in the future world of work.

3.1.15. Competence: Wisdom

Item 38 – Displaying wisdom

From the data analysis (Figure 64) it seems that for this item retail leaders is of the opinion that for the current and future world wisdom is displayed through solving problems regarding the needs of customer (Level II work). In Item 38 there is no significant difference between the current and future definition of the work and nature of business leaders.

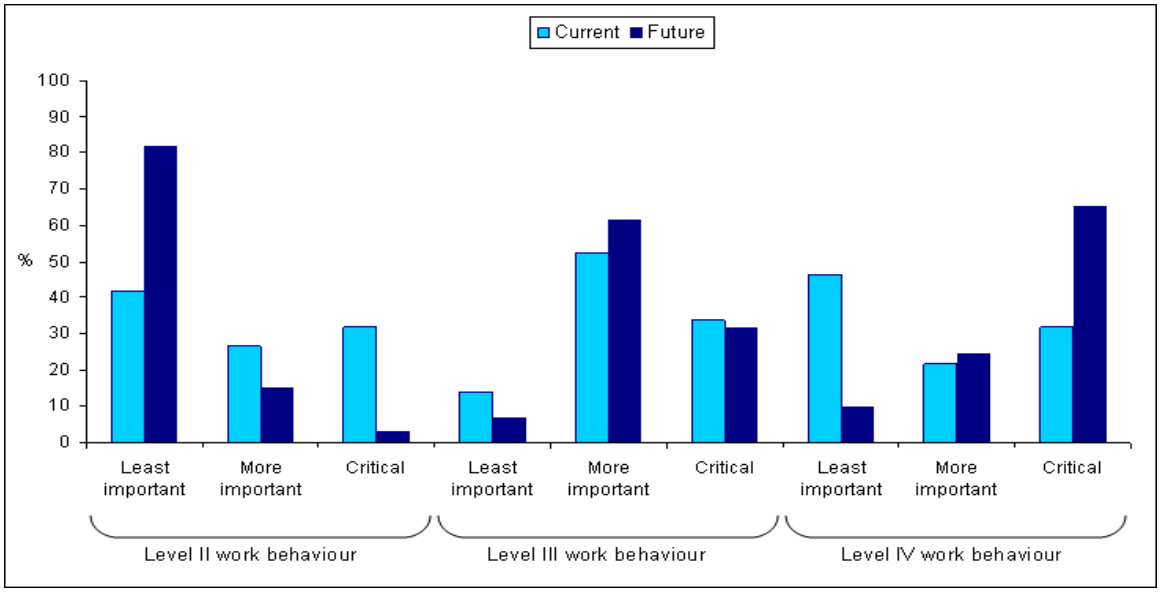
Figure 64: Wisdom – Item 38



Item 39 – Solutions

In Figure 65 it can be seen that there is a perceived difference between the current and future. The importance of Level II work behaviour showed a significant ($p \leq 0.05$) decrease, with only 3% classifying it as critical for the future. The importance of Level III work behaviour remained consistent between the current and future definitions. Using the z-test Level IV work behaviour is perceived to be significantly ($p \leq 0.05$) more critical in future than in the current world (current 32% vs. future 65%).

Figure 65: Wisdom – Item 39



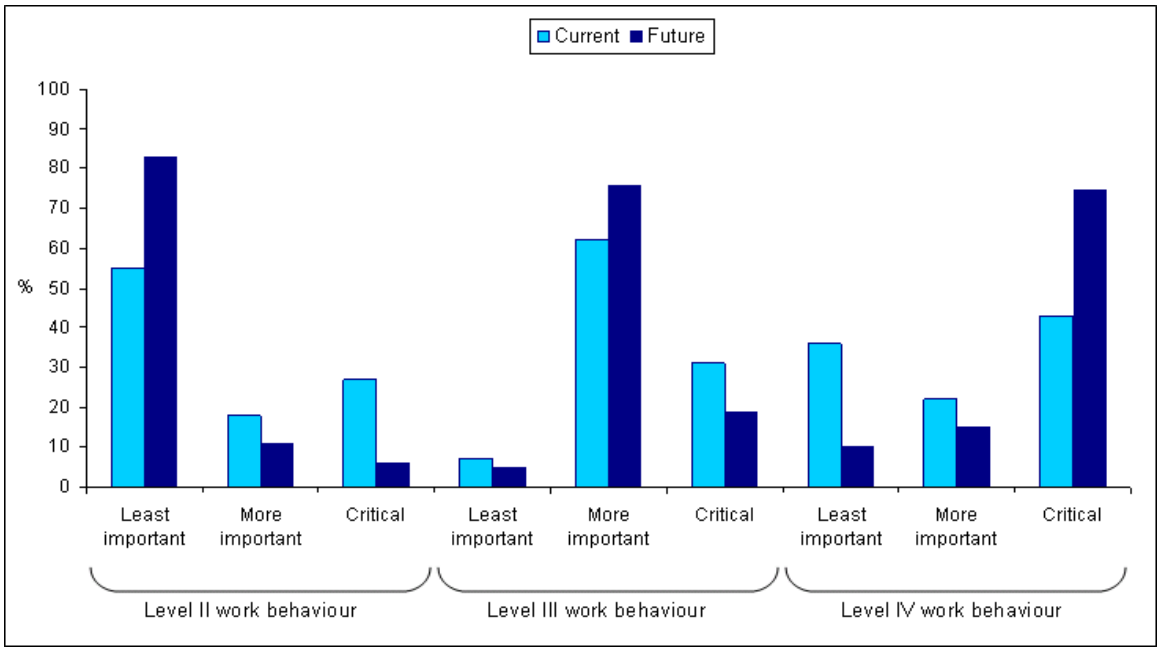
It can therefore be concluded that there is some difference between the perceived current and future definitions of the work and nature of business leaders with regard to **Wisdom**. Level IV will play the most important role in the future world of work.

3.1.16. Competence: Integrity

Item 40 – Behaviour demonstration

The importance of Level II work behaviour showed a significant (p≤0.05) decrease, with 83% of respondents classifying it as least important for the future and 55% classifying it as such for the current world of work, and only 6% classifying it as critical for the future. A significantly smaller proportion of respondents stated that Level III work behaviour would be critical for the future than the current work environment (current 31% vs. future 19%). Level IV work behaviour is perceived to be significantly (p≤0.05) more critical in future than in the current world (current 43% vs. future 75%). This demonstrates a clear difference between the perceived current and future definition.

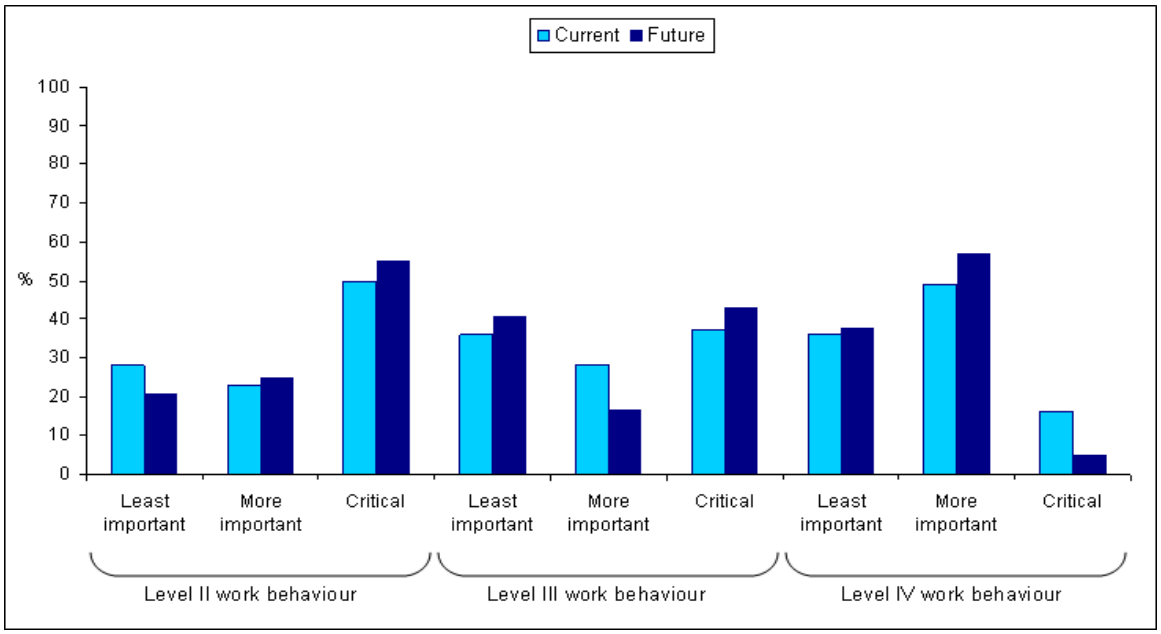
Figure 66: Integrity – Item 40



Item 41 – Focus areas

From the data analysed it can be argued that even though not significant, retail leaders reported that it will be in future become more important to assist others and to display appropriate behaviour that reflects the organisational value system.

Figure 67: Integrity – Item 41



It can therefore be concluded that there is some difference between the perceived current and future definitions of the work and nature of business leaders with regard to **Integrity**. Level IV will play the most important role in the future world of work.

3.2. Conclusion

It is evident from the above discussion that there is a difference in the perceived competencies for the current and the future scenario. It is also evident that in most cases competencies associated with Level IV are perceived to become more critical in the future world of business, with Level II and III playing a less important role. The following table is a summary of the above discussion.

Table 44: Summary - perceived differences between the importance of current and future competencies

Note: LI – Least Important; MI – More Important, C- Critical

Competency	Level	Item	Key Word: Item measured	Significance=* (p≤0.05)	Item	Key Word: Item measured	Significance=* (p≤0.05)	Item	Key Word: Item measured	Significance=* (p≤0.05)
Thinking Strategically	Level II - LI	Item 1	Future vision of the organisation	*	Item 2	Communication message	*			
	Level II - MI			*						
	Level II - C						*			
	Level III - LI						*			
	Level III - MI									
	Level III - C						*			
	Level IV - LI			*			*			
	Level IV - MI									
	Level IV - C						*			
Acting Strategically	Level II - LI	Item 3	Main strategy focus area	*	Item 4	Work results				
	Level II - MI			*						
	Level II - C			*						
	Level III - LI									
	Level III - MI						*			
	Level III - C									
	Level IV - LI			*						
	Level IV - MI									
	Level IV - C			*						
Organisational Resilience	Level II - LI	Item 5	Responses to change	*	Item 6	Change process	*	Item 7	Change behaviour	
	Level II - MI			*			*			
	Level II - C			*			*			
	Level III - LI									
	Level III - MI									
	Level III - C						*			
	Level IV - LI			*						
	Level IV - MI			*			*			
	Level- IV						*			
Technical Competence	Level II - LI	Item 8	Competence utilisation		Item 9	Time spent	*	Item 10	Responsibilities	*
	Level II - MI									
	Level II - C						*			
	Level III - LI									*
	Level III - MI									*
	Level III - C			*			*			*
	Level IV - LI						*			*
	Level IV - MI						*			

Competency	Level	Item	Key Word: Item measured	Significance=* (p≤0.05)	Item	Key Word: Item measured	Significance=* (p≤0.05)	Item	Key Word: Item measured	Significance=* (p≤0.05)
	Level IV - C			*			*			
Customer Orientation	Level II - LI	Item 11	Customer service	*	Item 12	Customer information		Item 13	Customer orientation	*
	Level II - MI									
	Level II - C			*						*
	Level III - LI									*
	Level III - MI									
	Level III - C									*
	Level IV - LI			*						
	Level IV - MI									
	Level IV - C			*			*			
Business Acumen	Level II - LI	Item 14	Business challenges	*	Item 15	Timeframe until work results is known		Item 16	Area of challenges	*
	Level II - MI									
	Level II - C			*						*
	Level III - LI									
	Level III - MI									
	Level III - C			*						*
	Level IV - LI			*						*
	Level IV - MI									
	Level IV - C			*						*
Learning and Knowledge Networking	Level II - LI	Item 17	Method of learning and development	*	Item 18	Content of learning	*			
	Level II - MI									
	Level II - C			*			*			
	Level III - LI						*			
	Level III - MI									
	Level III - C			*			*			
	Level IV - LI			*			*			
	Level IV - MI			*						
	Level IV - C			*			*			
Taking Action	Level II - LI	Item 19	Problem solving	*	Item 20	Decision making	*	Item 21	Leadership style	*
	Level II - MI			*			*			
	Level II - C			*						*
	Level III - LI									*
	Level III - MI			*			*			
	Level III - C						*			*
	Level IV - LI			*			*			
	Level IV - MI									
	Level IV - C			*			*			

Competency	Level	Item	Key Word: Item measured	Significance=* (p≤0.05)	Item	Key Word: Item measured	Significance=* (p≤0.05)	Item	Key Word: Item measured	Significance=* (p≤0.05)
Influencing Others	Level II - LI	Item 22	Method of influence		Item 23	Approach	*	Item 24	Areas of importance	
	Level II - MI									*
	Level II - C						*			
	Level III - LI			*			*			
	Level III - MI						*			
	Level III - C			*			*			*
	Level IV - LI			*			*			
	Level IV - MI			*			*			
	Level IV - C			*			*			
Information Processing	Level II - LI	Item 25	Method of processing		Item 26	Kind of Information		Item 27	Use of Information	
	Level II - MI									
	Level II - C									
	Level III - LI			*			*			*
	Level III - MI									
	Level III - C			*			*			*
	Level IV - LI			*			*			*
	Level IV - MI									
	Level IV - C			*			*			*
Contextual Competence	Level II - LI	Item 28	Approach towards work	*	Item 29	Work method	*	Item 30	Focus area of work	*
	Level II - MI			*			*			
	Level II - C			*			*			*
	Level III - LI									*
	Level III - MI			*			*			*
	Level III - C			*			*			*
	Level IV - LI			*			*			*
	Level IV - MI						*			*
	Level IV - C			*			*			*
Talent Management	Level II - LI	Item 31	Expression of Talent	*	Item 32	Purpose of Talent Management	*	Item 33	Learning organisation	*
	Level II - MI						*			
	Level II - C			*			*			*
	Level III - LI			*						
	Level III - MI			*			*			
	Level III - C						*			
	Level IV - LI			*			*			*
	Level IV - MI			*						
	Level IV - C			*			*			*

Competency	Level	Item	Key Word: Item measured	Significance=* (p≤0.05)	Item	Key Word: Item measured	Significance=* (p≤0.05)
Developing High Performing Teams	Level II - LI	Item 34	Creating a team environment		Item 35	Team development	*
	Level II - MI						
	Level II - C			*			*
	Level III - LI						
	Level III - MI						*
	Level III - C						*
	Level IV - LI			*			*
	Level IV - MI			*			*
	Level IV - C			*			*
Self Insight	Level II - LI	Item 36	Own strengths and weaknesses	*	Item 37	Capability alignment	*
	Level II - MI						
	Level II - C			*			*
	Level III - LI			*			
	Level III - MI						
	Level III - C			*			
	Level IV - LI						*
	Level IV - MI						*
	Level IV - C			*			*
Wisdom	Level II - LI	Item 38	Displaying wisdom		Item 39	Solutions	*
	Level II - MI						*
	Level II - C						*
	Level III - LI						
	Level III - MI						
	Level III - C						
	Level IV - LI						*
	Level IV - MI						
	Level IV - C						*
Integrity	Level II - LI	Item 40	Behaviour demonstration	*	Item 41	Focus areas	
	Level II - MI						
	Level II - C			*			
	Level III - LI						
	Level III - MI			*			
	Level III - C			*			
	Level IV - LI			*			
	Level IV - MI						
	Level IV - C			*			*

Table 44 indicates that there is a difference in the perceived competencies for the current and the future world of work for the retail business leader. The table further indicates that the respondents in this study perceive competencies such as Influencing Others, Learning and Knowledge Networks, Information Processing, Talent Management, Developing High Performing Teams and Self Insight at Level IV to be more critical for the future.

4. SUMMARY AND CONCLUSION

In this chapter, the results of the analysis performed were discussed and some conclusions were drawn from them. Based on the research objectives and the operational research model the hypothesis were formulated as "*There is a difference between the current definition of the work and nature of business leaders and the future business leader meta-competences within the South African retail industry".*

In order to facilitate the testing of the stated hypothesis significance testing was performed in order to determine whether differences are not due to some random aspect of the sample, but are a reflection of true differences that occur in the underlying population. Therefore the 16 defined competences and 41 questions were submitted to a z-test that gave the direction and strength of the significance.

It was concluded that in most instances even though not always significant there is a perceived difference between the current and future definitions of the work and nature of business leaders, where Level II work behaviour will become less important in the future and Level III and IV work behaviour shows increasing importance for the future retail leader.

The research also pointed out that despite the perceived difference between the current and future definitions of the work and nature of business leaders, current competence requirements will still be relevant for the future. It can therefore be concluded that there is not a distinct set of competence requirements for the current world of work and another set of competence requirements for the future.

What the research clearly indicates is that the level of complexity in the world of business and specifically the world of retail is increasing and therefore the future would require of more business leaders to be able to perform work associated with Levels III and IV.

It also needs to be pointed out that sample sizes were to small to report on any significant differences in the reported results with respect to age, gender, years of service and other biographical information. In the next chapter, some of the possible reasons for these findings will be explored, and recommendations made for further research.

CHAPTER 8: CONCLUSIONS AND RECOMMENDATIONS

1. INTRODUCTION

In this final chapter, the purpose is to summarise the findings of the research against the background of the literature reviewed in Chapters 2-5. In this manner a final overview of the research objectives and hypothesis is provided it will be shown how the literature as well as the field research assisted in proving or disproving the hypothesis.

Based on theses findings, some recommendations are made for further research, as well as for improving research similar to that conducted in this study.

2. CONCLUSIONS

It was evident from the literature review that the global changes surrounding organisations are leading to an increasingly chaotic and complex world of work. This will lead to changes in legal and popular concepts about organisations as well as a redefinition of the concept “work”.

The study therefore proposed that despite the unpredictability of the future, future scenarios need to be explored in order to more fully understand the demands of today and the critical decisions that must be made for the future. The study further proposed the rethinking of the manner in which organisations plan and execute work in the emerging future, with specific emphasis on the South African retail industry. This in itself also implied a rethinking in the work and nature of future business leaders.

Based on the results of the research, the following conclusions may be drawn in terms of the various questions raised in the literature review chapters. This needs to be viewed against the background of the stated problem researched:

1. What is the paradigm and supporting philosophies of the future organisation and the world of work from a systems thinking perspective?

2. How can the work and nature of the Future Business Leader be defined?
3. What qualities (meta-competencies) of leadership will lead to success in this emerging business environment?

2.1. The future world of work from a systems perspective

Chapter 3 discussed the broader context of the future world of work from a systems perspective, arguing that the future world of work can be viewed as a complex adaptive social system. The future promises to be turbulent, fast with an exponential increase in the levels of complexity and will lead to changes in legal and popular concepts about organisations. Factors identified through the literature review that drive these changes include globalisation, cross national strategic alliances and mergers, information technology innovations and the ethical migration.

A futuristic model was developed on the principles of a complex adaptive social system implying that organisations operate in a zone between stability and predictability on one hand, and chaos and unpredictability on the other. The complexity of an organisation depends on the complexity of the elementary components, the richness of their connectivity and their functional differentiation. Organisations innovate by producing spontaneous, systemic bouts of novelty from which new patterns of behaviour emerge, which enhance the ability to adapt successfully to the environment or to evolve to higher effectiveness.

Some of the key future implications of the research for business organisations from a complex adaptive systems perspective were identified as follows:

- The future will focus on meaning and offering of solutions. The world of work would be a community of meaning by listening; produce what is desired and being a long term partner to their customer(s);
- Future organisations will not only have a portfolio of product and services, but also of core competencies which will include marketing excellence, organising the value chain and innovation;

- The structure and design will be virtual, flexible and dynamic with an increase in complexity, interdependency of systems and widening seamlessness between people, systems, information and structures;
- Financial measurements will no longer serve as the only form of reporting business results/ performance. Success measurements will be an integration of financial, environmental and social reporting with a focus on intellectual assets and knowledge management;
- In future customers/ consumers will discriminate against organisations failing to meet the criteria of acceptable ethical business practices. Organisations would be viewed as a system of integrity, working towards good corporate citizenship - the focus is on wealth creation and sustainability; and
- Technology will automate existing processes, abolishing whole classes of occupation, cancel traditional divisions and create entirely new ways of organising companies and will eliminate the boundaries between industries. It is highly unlikely that technology and the Internet will replace brick and mortar, what it may bring to retail is a more effective way to integrate distribution and marketing and optimising of the value chain.

This study also included an exploration in the world of retail. All indications are that the retail industry will change dramatically in the near future, further coupled to economic and environmental change. Some of these changes include:

- Changing consumer demographics coupled to an increasingly demand to be involved in business decisions. Consumers are demanding, fickle, disloyal, individualistic and easily bored. They are better informed and more sophisticated, looking for fast and convenient shopping and demand a huge variety in products and services;
- Emergence of a consumer-orientated society, based on convenience, a quicker demand and greater variety of products and services;
- Retail processes throughout the value chain are operating at an ever-faster level;
- The impact of globalisation, consolidation, deflation and economic integration;
- Technological changes enabling opportunities for e-commerce and multi-channel retailing;

- Changing roles of suppliers and retailers; and
- Changes in retail strategy and structure.

In Chapter 4 it was concluded that most of the emerging trends and patterns of the future world of work can also be hold true for the future world of retail. The future world of work will be characterised by an integration of financial, social and environmental reporting whereas there is only an emergence of awareness of integrated reporting in the world of retail. Retailers are more likely to include this trend in their product and service offerings.

The conclusion was also reached that there is a significant overlap between emerging international retail trends and patterns and the South African retail arena. Differences lie in infrastructure and the lack of available technology and resources within the South African context. The South African consumer are also becoming more informed and sophisticated, demanding unique product and service offerings. But these demands are driven by the unique culture of the different subcultures within South Africa.

Reflection on the changing world of work and the changing world of retail points to some challenges that leaders of organisations must face. From a South African retail perspective this does not only include the alignment of strategic intent with meaning or purpose, but also challenges like Black Economic Empowerment, HIV/Aids, Legislative challenges and the structural make-up of the workforce.

The next section will now focus on the changing work and nature of future business leaders within this changing world of work.

2.2. The work and nature of the future business leader

It is difficult to envisage leadership and management in its current form surviving the emerging world of work discussed above. The contemporary leadership research agenda has changed and the focus is now on:

- organisation orientated leadership research;

- leadership of organisations; and
- emerging forms of distributed leadership to assure organisational innovation and change.

For the purposes of this study future business leadership was defined as consisting of two components, namely the work of leaders and the nature of leadership. A conclusion was reached that the work of the future business leader from a systems perspective is to:

- Design and develop the purpose (or function, role) that the organisation as a complex adaptive social system and/or subsystem fulfils as measured by the implementation of its vision, mission and related strategy;
- Perceive and understand the system (organisation) as a whole which is "producing" a particular state within which the organisation and its sub-systems functions - realising that a change in one area of the system will have an immediately effect on the rest of the system. Making sense of what is currently happening; by thinking in terms of process which refers to making sense of how results (order, chaos, complexity and paradoxes) are "produced" within the system and its subsystems; and
- Think in terms of the governance which means how the integrity of a particular system is maintained to ensure the survival of the system.

It was also concluded the nature of the future business leader is also an integrated system based on holistic wellness, ethics and values from a personal perspective. The following principles regarding the nature of the future business leader were identified:

- Leadership is about creating shared possible futures and realising a shared, specifically chosen future with, through and for people. The nature of leadership forms a paradox itself, from the one perspective it is to focus on the future (bringing change), while maintaining the current;
- Leadership is "everyone's business", implying that it is not reserved for a selective few;

- Leadership is about the modelling of worthiness, credibility and substance. In a sense it can be argued that leadership is required to “prove their right to lead”, what makes leadership worthy of being followed;
- The nature of leadership is also to create sustainability. Sustainability implies a “time” component. It can therefore be argued that the nature of leadership may change at different time concepts – short, medium and long term; and
- Caring is at the heart of leadership. Followers wanted to be treated with dignity, respect and compassion. Followers are seeking honesty and acknowledgement for not only their contributions to the workplace, but also for their own uniqueness.

Research does show an interest in the possibility of different leadership requirements at different levels. Following this, it was argued that the future business leader would function at different levels of complexity, increasing at each organisational level. The increasing task complexity is a function of the uncertainties created by the necessity to deal with a more encompassing and turbulent environment as a leader moves up the levels of work.

2.3. Leadership meta-competence model for the future world of work

Given the input from Chapters 2, 3 and 4, the focus in Chapter 5 was on defining the work and nature of the future business leader. Subsequently a Leadership meta-competence model for the future world of work was formulated that would allow for the testing of the research hypothesis.

In Chapter 6 the research methodology was explained. In Chapter 7 it was concluded that there is a difference between the current and future definitions of the work and nature of business leaders in the South African retail industry. Level II work behaviour will become less important in the future and Level III and IV work behaviour show increasing importance for the future business leader.

These competencies that show increasing importance for the future business leader include:

- Organisational resilience;
- Learning and Knowledge networking;
- Taking action;
- Contextual competence
- Influencing others;
- Talent management;
- Developing high performing teams; and
- Integrity.

This research has therefore succeeded in not only adding to an understanding of the research problems, but also in supplementing the existing body of knowledge by creating further questions to be understood and answered.

3. RECOMMENDATIONS

A number of recommendations can be made to further an understanding of the future world of work, the future world of retail, as well as the work and nature of the future business leader. This section will also focus on recommendations for improving the research methodology utilised in this study.

3.1. The future world of work and retail

From the perspective of the future world of work this study focussed on the paradigm and supporting philosophies of the future organisation and the world of work from a systems thinking perspective in terms of research and evidence found in literature. It would therefore be useful to statistically validate the conclusions reached in Section 2.1. and to understand this in further detail.

The literature indicated a high degree of concordance between the future world of work and the future world of retail. In Chapter 4 it was mentioned that despite the fact that retail is a significant player in the world economy, this is an industry,

especially from a South African perspective, where available research is limited and fragmented. It is therefore recommended that further research is conducted regarding the South African retail environment with specific emphasis on:

- Impact of globalisation on the South African retail and supplier base;
- The possibility and impact of economic integration – is there a case for a "federal economy" in the Southern African region and what will the impact be on the retail industry?; and
- The characteristics, structure and challenges of the informal retail sector as well as an analysis of the black entrepreneur predominantly operating in the informal sector.

3.2. The work and nature of the future business leader

It was already mentioned that one of the main limitations of this study was the fact that researchers and respondents are not always able to divorce future perspectives from the concepts and ideas which are currently used to make sense of the world. This statement is further complicated by Levels of Work Theory which indicated that an individual not only need to able to understand the complexity at a certain level but also need to be able to generate complexity at that specific level.

Individuals that formed part of the pilot group as well as the sample group and that were only able to generate complexity on a Level III would have been limited in their understanding of the complexity requirements of leadership at a Level IV and this could have distorted some of the obtained results.

Therefore this study was limited in is nature in terms of:

- Not being able to fully "divorce" current and future perspectives; and
- The sample group not being differentiated enough to cater for the limitations impacted by Levels of Work Theory.

Ultimately this study suggests that the work and nature of the future business leadership in the South African retail industry requires leadership at all work levels. It further indicated that that the level of complexity in the world of business and

specifically the world of retail is increasing and therefore the future would require of more business leaders to be able to perform work associated with Level III and IV. This in itself implies further research in order to further understand the impact on human capital management practices in terms of:

- Talent management;
- Work and organisational design especially from a Levels of Work or Stratified Systems Theory perspective;
- Organisational culture;
- Transformational change; and
- Diversity challenges.

3.3. Research Methodology Improvements

The main purpose of this study was to conduct explorations into the future world of work as well as the competences required by leaders in the future world. The results of the exploratory research were used to create preliminary concepts and therefore indicate certain limitations in terms of the validation of the meta-competence model. The main limitations of employing this approach in this study were:

- During the quantitative pilot study the initial validation of the meta-competence model only business leaders from the Furniture and Appliances retail sector formed part of the pilot group. This clearly did not cater for the impact that other variables like age, gender and the type of retail industry might have had on the results;
- Making use of a convenience sample. Although a convenience sample is a good source of preliminary data it isn't necessarily representative of the whole population. The validation was further limited by only targeting senior management in the 16 different retail companies. This implied an age and gender limitation as most senior managers were male and in the age categories of 40-49 years. The convenience sample was further too small to cater for other differences like education, experience and type of retail industry;

- It was further assumed that a person's current level of work complexity would be based on the current hierarchal level of the employee, which is not necessarily the case; and
- The general problem of mono-operation bias occurred as a limited number of questions (41) in the questionnaire were used to determine the behavioural subtleties of competencies at different levels of work complexity.

Based on these limitations it is suggested that future research assessing the perceptions of the work and nature of future business leaders should focus on the broadening the pool of behavioural manifestation of competencies at different levels of work complexity. The following suggestions are made that may assist in improving the research methodology:

- Better differentiation between the different levels of work (Level II to IV);
- Larger sample size with better representation at the different levels of work; and
- It is also recommended to use an instrument like the Career Path Appreciation (CPA) of Stamp (1991) to determine an individual's current and potential level of work complexity;

In terms of future research it is also suggested that a longitudinal study is conducted to research development trends over the life span of an individual and/or an organisation. This could lead to a better understanding of individuals as they move through the different levels of work during their career as well the requirements of organisations when an "advance" level becomes relevant due the increase in complexity that needs to be catered for.

4. CLOSING COMMENTS

In the problem statement of Chapter 1, the following account was made:

> *"…organisations are faced with a period of extraordinary change, where both the essence and swiftness of change are different from what has been experienced before. As organisations within which*

leaders have to operate changes, so the nature of leadership and the work of the leader must change as well."

As was shown in the review of literature in Chapters 2, 3 and 5 organisations find themselves between an old and new era of defining the concept work as well as the work and nature of leaders. It is also clear that there is a lot of speculation and uncertainty of what the future may hold. It is important to explore the future in order to make sense of out of the demands of today and the vital decisions made in the present that will shape the future.

The most important finding of this research is that current leaders in the retail industry in South Africa perceive a difference in the leadership competencies required now and in the future. They specifically perceive competencies such as Influencing Others, Learning and Knowledge Networks, Information Processing, Talent Management, Developing High Performing Teams and Self Insight at Level IV to be more critical for the future leadership in the retail industry.

In Chapter 1 it was argued that there is concern about the building of leadership within organisations and that current leader selection practices is designed to produce leaders who act as leaders in only a very limited sense. Merely trying to equip leaders for the future with a generic set of traits will not be sufficient.

It is therefore suggested that organisations in their leadership selection and development approaches:

- Focus on aspects such as values, integrity and honesty towards all;
- Move from the traditional focus on leadership towards a focus that is more orientated towards leadership of organisations and not the leader per se; and
- Take into account emerging forms of distributed leadership – more effective leadership at more levels - to assure organisational innovation and change at all organisational levels.

Ultimately the work and nature of the future business leadership requires leadership at all work levels, placing emphasis on the leader as the integrator of corporate systems.

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APPENDIX A: LEADERSHIP COMPETENCE ASSESSMENT

The full questionnaire used in this study is enclosed as from the following page.

QUESTIONAIRE FOR THE ASSESSMENT OF THE IMPORTANCE OF CURRENT AND FUTURE LEADERSHIP COMPETENCES WITIN THE WORLD OF RETAIL

Leadership Competence Assessment

The aim of this questionnaire is to determine what competencies retail business leaders would need now and what competencies would be required for the future world of work. This questionnaire consist out of two sections. Section 1 is concerned with Biographical Information and Section 2 is the rating of the importance of the leadership competencies for the current and future world of work

SECTION 1 - Biographical Information

The purpose of this section of the questionnaire is to obtain biographical information, which will be utilised to analyse the data provided in Section 2. Instructions: In each line below, mark your selection with a "**x**" by merely typing the "**x**" in the block below the description.

1	**Age Group**	>29	30-39	40-49	50-59	60>	
2	**Gender**	Male	Female				
3	**Years of service within current organisation**	<1	1-2	2-5	6-10	11-15	16-20	>20
4	**Educational Level**	Grade 11 & lower		Grade 12		Tertiary Level	
5	**Home Language**	English		Afrikaans		IsiXhosa	
		IsiZulu		Sotho/ Tswana		Other	

6	**Which of the following 3 statements best describes your typical, daily work function?**	
	My focus is on ensuring quality and excellence. I support my workers to provide work and service of a high quality.	
	My focus is on constructing, connecting and fine-tuning systems and processes to ensure the optimal utilisation of current available resources.	
	The focus of my work is to explore possible new futures for the organisation inclusive of developing new products/ services and the positioning of the organisation within the market context.	

7	**Nature of the industry you currently work in**	**Clothing**	**Other**	**Furniture**

SECTION 2

The focus of this section is to obtain your views on the importance of the following leadership competences. It is important to view these questions from your perspective and your current work level and not those of your peers, sub-ordinates or supervisors.

Instructions: You are required to indicate your personal view for each statement listed below utilising the following scale: **L** - least important, **I** - more important, **C**- critical.
First rate the 3 statements per question in terms of how important you view them for retail business leaders (working at your current organisational level) in ranking order for the current world of work by typing in an "**x**" in the block you view least important, then an "**x**" in the block you find more important and lastly an "**x**" in the block you find of critical importance.
Secondly rate the importance of the items for retail business leaders for the future world of work in the same manner.

		CURRENT			**FUTURE**		
Example	**Question**	**L**	**I**	**C**	**L**	**I**	**C**
	Statement 1	**x**					**x**
	Statement 2			**x**		**x**	
	Statement 3		**x**		**x**		

Question 1	**For a retail business leader it is important to**	**L**	**I**	**C**	**L**	**I**	**C**
	Convey the future vision of the organisation to only the current work team						
	Design and develop the future vision of the organisation						
	Convey the future vision of the organisation to internal and external stakeholders						
Question 2	**A retail business leader spend most of his/her time communicating about**	**L**	**I**	**C**	**L**	**I**	**C**
	Customer service standards and compliance						
	Processes, alignment and optimisation						
	The future and the integration of different futures						
Question 3	**The main focus of a retail leader is to**	**L**	**I**	**C**	**L**	**I**	**C**
	Support and co-ordinate employees to achieve set work standards						
	Optimise systems that will enable people to execute the intended organisational strategy						
	Develop and define organisational strategy						
Question 4	**A retail business leader's work results should focus on**	**L**	**I**	**C**	**L**	**I**	**C**
	Adding value by integrating organisational systems						
	Clients needs and requirements						
	Organisational effectiveness and efficiency						
Question 5	**To change the external environment a business leader's first response is to focus on**	**L**	**I**	**C**	**L**	**I**	**C**
	The correct course of action required of the team						
	The most appropriate action that the organisation should take						
	Translating the changes into the strategic business objectives						
Question 6	**During a change process in the organisation it is important to**	**L**	**I**	**C**	**L**	**I**	**C**
	Implement action plans that will help the organisation during the change process						
	Have a combination of humility and fierce resolve						
	Manage the paradox of stability and change						

Question 7	**During organisational changes the retail business leader should**	**L**	**I**	**C**	**L**	**I**	**C**
	Support the team to achieve the changed standards						
	Convey a clear understanding of the need to change and steps to the change						
	Take ownership for the change through directing the organisation						
Question 8	**It is important for a retail leader to utilise his/her knowledge, skills and expertise to**	**L**	**I**	**C**	**L**	**I**	**C**
	Optimise the use of different resources						
	Support employees to achieve set standards						
	Develop new products and services						
Question 9	**A lot of time spent by a retail leader is concerned with**	**L**	**I**	**C**	**L**	**I**	**C**
	Supporting the team to achieve set standards						
	Optimising systems and processes						
	Positioning of the organisation within the market						
Question 10	**A retail leader's most important responsibilities relate to**	**L**	**I**	**C**	**L**	**I**	**C**
	Customer satisfaction						
	Optimising systems and processes						
	The competitive position of our business in the market place						
Question 11	**In the work of a retail business leader customer service is about**	**L**	**I**	**C**	**L**	**I**	**C**
	Delivering a service of high quality						
	Creating meaningful solutions for identified customer base						
	Analysing and reacting to changing customer requirements						
Question 12	**Business leaders should gather information regarding**	**L**	**I**	**C**	**L**	**I**	**C**
	Level of customer service and satisfaction						
	Systems and processes enabling customer service						
	Changing customer demographics and trends						

Question 13	**The work of a retail business leader requires him/her to**	**L**	**I**	**C**	**L**	**I**	**C**
	Lead a team to provide a customer service of high quality						
	Initiate development of new products/ services to meet customer needs						
	Find solutions to customer service delivery processes and systems						
Question 14	**The challenges in the leader's job includes**	**L**	**I**	**C**	**L**	**I**	**C**
	To ensure that all company policies are adhere to, to ensure high service levels						
	Design and develop policies to ensure cost effectiveness						
	Guide the organisation to implement policies that will ensure sustainability						
Question 15	**How long does it take a retail leader to know that work results were achieved?**	**L**	**I**	**C**	**L**	**I**	**C**
	Within a year after the completion of work tasks						
	Two to three years after the completion of work tasks						
	Fairly soon after the completion of work tasks						
Question 16	**The challenges leaders need to deal with includes**	**L**	**I**	**C**	**L**	**I**	**C**
	Solving client and team problems						
	Constructing and connecting systems to optimise resource utilisation						
	Ensuring business sustainability and competitive advantage						
Question 17	**Learning and development within the organisation should take place by**	**L**	**I**	**C**	**L**	**I**	**C**
	Supporting workers to achieve set standards						
	Participating in “knowledge networks”, sharing knowledge with others in the organisation						
	Instituting and participating in “knowledge networks”, sharing knowledge with others internal and external to the organisation						
Question 18	**Learning in organisations should**	**L**	**I**	**C**	**L**	**I**	**C**
	include other technical and professional but topics, but should focus on optimising systems and processes						
	be focused on current technical topics						
	include other technical and professional but topics, focussing on preparing the organisation for the future						

Question 19	**Leaders should solve problems by:**	**L**	**I**	**C**	**L**	**I**	**C**
	Considering tried and tested ways						
	Tackling a problem systematically						
	Taking a conceptual approach						
Question 20	**Leaders should base decisions on**	**L**	**I**	**C**	**L**	**I**	**C**
	Guidelines						
	Good practices						
	Possibilities						
Question 21	**The following leadership style would be most appropriate to the retail leader:**	**L**	**I**	**C**	**L**	**I**	**C**
	Putting processes in place to make initiatives happen						
	The integration of possible futures to position the organisation in its competitive environment						
	Managing a team						
Question 22	**Leaders should influence others by**	**L**	**I**	**C**	**L**	**I**	**C**
	Emphasising the importance of good quality						
	Identifying the paradigms and needs of various individuals						
	Creating synergistic relationships between individuals, the organisation, and the environment						
Question 23	**The best approach towards people can be described as:**	**L**	**I**	**C**	**L**	**I**	**C**
	Supporting people to achieve set standards						
	Selling ideas and concepts to people to get them to willingly follow me						
	Seeking out information which increases understanding by all stakeholders						
Question 24	**It is important for a retail leader to**	**L**	**I**	**C**	**L**	**I**	**C**
	Support people to improve their effectiveness						
	Create an environment where people will feel free to improve their effectiveness						
	Seeking out information which increases understanding of influencing individuals						

Question 25	**Leaders deal with information that**	**L**	**I**	**C**	**L**	**I**	**C**
	They gather, select and process in a practical, step-wise manner						
	They receive regarding customer related issues						
	Is interrelated and they gather pro-actively from a wide variety of sources / perspectives						
Question 26	**Leaders work with the following information:**	**L**	**I**	**C**	**L**	**I**	**C**
	Information regarding customer requests, issues and problems						
	Processes and systems that enable me to achieve targets and business objectives						
	Business operational inputs and industry intelligence						
Question 27	**Leaders use information to**	**L**	**I**	**C**	**L**	**I**	**C**
	Ensure customer excellence						
	Identify potential answers to problems which are then evaluated						
	Creatively to compare several "what if" scenarios						
Question 28	**A leaders approach towards work can best be described as:**	**L**	**I**	**C**	**L**	**I**	**C**
	To follow the correct procedures						
	To adapt operational frameworks in order to optimise efficiencies						
	To build new frames of reference						
Question 29	**A leader prefers his/her work methods to be:**	**L**	**I**	**C**	**L**	**I**	**C**
	Such that it is clearly specified						
	Such that I can implement and adjust appropriate work systems						
	Such that I am enabled to establish relevant parameters to govern business operations						
Question 30	**A leaders work should focus on**	**L**	**I**	**C**	**L**	**I**	**C**
	Business requirements of the here and now						
	Business requirements focusing on the next 12 to 24 months						
	Business requirements of the future						

Question 31	In a leaders work he/she	L	I	C		L	I	C
	Assists his/her team to provide excellent service							
	Optimises systems that foster the free expression of ideas							
	Empowers others to contribute to the organisation							

Question 32	Talent management is about	L	I	C		L	I	C
	Attracting people that can fulfil current job requirements							
	Attracting and retaining talent that fit business requirements							
	Retaining people through providing meaning and purpose to the job content							
Question 33	**A retail leader should**	**L**	**I**	**C**		**L**	**I**	**C**
	Foster a culture of learning among his/her team							
	Develop systems that foster a learning organisational culture							
	Aligns human and other resources to create a learning organisational culture							
Question 34	**In his/her work a leader should**	**L**	**I**	**C**		**L**	**I**	**C**
	Optimise the environment where others can operate as a team							
	Provide assistance to others to operate as a team							
	Create an environment where others can work as teams							
Question 35	**For a leader it is important to:**	**L**	**I**	**C**		**L**	**I**	**C**
	Develop their current team							
	Develop teams within current functional boundary							
	Develop teams across functional boundaries							
Question 36	**For a leader it is important to understand own strengths and weaknesses**	**L**	**I**	**C**		**L**	**I**	**C**
	In a specific area of work							
	In terms of a career							
	As a representative of the organisation							

Question 37	**A leader should take responsibility to align his/her capability profile**	**L**	**I**	**C**	**L**	**I**	**C**
	With current work requirements						
	To the nature of the job outputs						
	To leverage own competitive edge						
Question 38	**A retail leader displays wisdom through**	**L**	**I**	**C**	**L**	**I**	**C**
	Associating information interactions and identifying ranges of possible appropriate alternatives						
	Identifying alternatives, imagining the outcomes of these alternatives and deciding on the correct one						
	Solving problems regarding the needs of customers based on best practices						
Question 39	**A leader's solutions to work problems are**	**L**	**I**	**C**	**L**	**I**	**C**
	In line with policies, procedures and set standards						
	In line with available/given facts, procedures, policies and set goals						
	Focused on risks and contingency plans						
Question 40	**A leader should demonstrate behaviour that**	**L**	**I**	**C**	**L**	**I**	**C**
	Is in line with policy						
	Can be viewed as credible by all employees						
	Can be viewed as credible by all industry players						
Question 41	**In the work of a leader it is important to**	**L**	**I**	**C**	**L**	**I**	**C**
	Create appropriate organisational behaviours						
	Assist other in demonstrating behaviour that reflects organisational values						
	Show behaviour that reflects the appropriate organisational values						

APPENDIX B: RESULTS OF STATISTICAL ANALYSES

Question 1: Current, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	76	75.2	75.2
	More Important	19	18.8	18.8
	Critical	6	5.9	5.9
	Total	101	100.0	100.0

Question 1: Future, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	90	89.1	89.1
	More Important	9	8.9	8.9
	Critical	2	2.0	2.0
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.752	0.891	-2.6230761	-1.96	1.96	Sig
0.188	0.089	2.0579462	-1.96	1.96	Sig
0.059	0.02	1.4300473	-1.96	1.96	Not sig
101	101				

Question 1: Current, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	9	8.9	8.9
	More Important	39	38.6	38.6
	Critical	53	52.5	52.5
	Total	101	100.0	100.0

Question 1: Future, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	4	4.0	4.0
	More Important	41	40.6	40.6
	Critical	56	55.4	55.4
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.089	0.04	1.4246592	-1.96	1.96	Not sig
0.386	0.406	-0.2906701	-1.96	1.96	Not sig
0.525	0.554	-0.4136347	-1.96	1.96	Not sig
101	101				

Question 1: Current, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	16	15.8	15.8
	More Important	43	42.6	42.6
	Critical	42	41.6	41.6
	Total	101	100.0	100.0

Question 1: Future, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	7	6.9	6.9
	More Important	51	50.5	50.5
	Critical	43	42.6	42.6
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.158	0.069	2.0137923	-1.96	1.96	Sig
0.426	0.505	-1.1290289	-1.96	1.96	Not sig
0.416	0.426	-0.143942	-1.96	1.96	Not sig
101	101				

Question 2: Current, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	10	9.9	9.9
	More Important	36	35.6	35.6
	Critical	55	54.5	54.5
	Total	101	100.0	100.0

Question 2: Future, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	23	22.8	22.8
	More Important	39	38.6	38.6
	Critical	39	38.6	38.6
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.099	0.228	-2.5173949	-1.96	1.96	Sig
0.356	0.386	-0.441534	-1.96	1.96	Not sig
0.545	0.386	2.2945438	-1.96	1.96	Sig
101	101				

Question 2: Current, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	16	15.8	15.8
	More Important	50	49.5	49.5
	Critical	35	34.7	34.7
	Total	101	100.0	100.0

Question 2: Future, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	49	48.5	48.5
	More Important	43	42.6	42.6
	Critical	9	8.9	8.9
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.158	0.485	-5.31148837	-1.96	1.96	Sig
0.495	0.426	0.9861139	-1.96	1.96	Not sig
0.347	0.089	4.6745286	-1.96	1.96	Sig
101	101				

Question 2: Current, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	71	70.3	70.3
	More Important	20	19.8	19.8
	Critical	10	9.9	9.9
	Total	101	100.0	100.0

Question 2: Future, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	27	26.7	26.7
	More Important	21	20.8	20.8
	Critical	53	52.5	52.5
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.703	0.267	6.8894863	-1.96	1.96	Sig
0.198	0.208	-0.176686	-1.96	1.96	Not sig
0.099	0.525	-7.3577238	-1.96	1.96	Sig
101	101				

Question 3: Current, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	37	36.6	36.6
	More Important	36	35.6	35.6
	Critical	28	27.7	27.7
	Total	101	100.0	100.0

Question 3: Future, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	70	69.3	69.3
	More Important	21	20.8	20.8
	Critical	10	9.9	9.9
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.366	0.693	-4.9275211	-1.96	1.96	Sig
0.356	0.208	2.3695959	-1.96	1.96	Sig
0.277	0.099	3.3249025	-1.96	1.96	Sig
101	101				

Question 3: Current, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	26	25.7	25.7
	More Important	48	47.5	47.5
	Critical	27	26.7	26.7
	Total	101	100.0	100.0

Question 3: Future, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	17	16.8	16.8
	More Important	59	58.4	58.4
	Critical	25	24.8	24.8
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.257	0.168	1.5553061	-1.96	1.96	Not sig
0.475	0.584	-1.5612192	-1.96	1.96	Not sig
0.267	0.248	0.3088623	-1.96	1.96	Not sig
101	101				

Question 3: Current, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	38	37.6	37.6
	More Important	17	16.8	16.8
	Critical	46	45.5	45.5
	Total	101	100.0	100.0

Question 3: Future, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	15	14.9	14.9
	More Important	20	19.8	19.8
	Critical	66	65.3	65.3
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.376	0.149	3.7947105	-1.96	1.96	Sig
0.168	0.198	-0.5517691	-1.96	1.96	Not sig
0.455	0.653	-2.8885346	-1.96	1.96	Sig
101	101				

Question 4: Current, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	15	14.9	14.9
	More Important	41	40.6	40.6
	Critical	45	44.6	44.6
	Total	101	100.0	100.0

Question 4: Future, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	9	8.9	8.9
	More Important	52	51.5	51.5
	Critical	40	39.6	39.6
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.149	0.089	1.3225365	-1.96	1.96	Not sig
0.406	0.515	-1.5634119	-1.96	1.96	Not sig
0.446	0.396	0.7205977	-1.96	1.96	Not sig
101	101				

Question 4: Current, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	58	57.4	57.4
	More Important	35	34.7	34.7
	Critical	8	7.9	7.9
	Total	101	100.0	100.0

Question 4: Future, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	66	65.3	65.3
	More Important	20	19.8	19.8
	Critical	15	14.9	14.9
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.574	0.653	-1.1567095	-1.96	1.96	Not sig
0.347	0.198	2.4121173	-1.96	1.96	Sig
0.079	0.149	-1.5747955	-1.96	1.96	Not sig
101	101				

Question 4: Current, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	27	26.7	26.7
	More Important	26	25.7	25.7
	Critical	48	47.5	47.5
	Total	101	100.0	100.0

Question 4: Future, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	25	24.8	24.8
	More Important	28	27.7	27.7
	Critical	48	47.5	47.5
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.267	0.248	0.3088623	-1.96	1.96	Not sig
0.257	0.277	-0.3213506	-1.96	1.96	Not sig
0.475	0.475	0	-1.96	1.96	Not sig
101	101				

Question 5: Current, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	45	44.6	44.6
	More Important	28	27.7	27.7
	Critical	28	27.7	27.7
	Total	101	100.0	100.0

Question 5: Future, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	71	70.3	70.3
	More Important	15	14.9	14.9
	Critical	15	14.9	14.9
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.446	0.703	-3.8253478	-1.96	1.96	Sig
0.277	0.149	2.2493151	-1.96	1.96	Sig
0.277	0.149	2.2493151	-1.96	1.96	Sig
101	101				

Question 5: Current, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	21	20.8	21.0
	More Important	57	56.4	57.0
	Critical	22	21.8	22.0
	Total	100	99.0	100.0
Missing	System	1	1.0	
Total		101	100.0	

Question 5: Future, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	20	19.8	19.8
	More Important	55	54.5	54.5
	Critical	26	25.7	25.7
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.21	0.198	0.2111042	-1.96	1.96	Not sig
0.57	0.545	0.3569172	-1.96	1.96	Not sig
0.22	0.257	-0.6161018	-1.96	1.96	Not sig
100	101				

Question 5: Current, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	34	33.7	34.0
	More Important	15	14.9	15.0
	Critical	51	50.5	51.0
	Total	100	99.0	100.0
Missing	System	1	1.0	
Total		101	100.0	

Question 5: Future, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	10	9.9	9.9
	More Important	31	30.7	30.7
	Critical	60	59.4	59.4
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.34	0.099	4.309651	-1.96	1.96	Sig
0.15	0.307	-2.6999048	-1.96	1.96	Sig
0.51	0.594	-1.2016242	-1.96	1.96	Not sig
100	101				

Question 6: Current, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	13	12.9	12.9
	More Important	12	11.9	11.9
	Critical	76	75.2	75.2
	Total	101	100.0	100.0

Question 6: Future, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	24	23.8	23.8
	More Important	27	26.7	26.7
	Critical	50	49.5	49.5
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.129	0.238	-2.021269	-1.96	1.96	Sig
0.119	0.267	-2.713089	-1.96	1.96	Sig
0.752	0.495	3.9094541	-1.96	1.96	Sig
101	101				

Question 6: Current, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	56	55.4	55.4
	More Important	41	40.6	40.6
	Critical	4	4.0	4.0
	Total	101	100.0	100.0

Question 6: Future, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	48	47.5	47.5
	More Important	40	39.6	39.6
	Critical	13	12.9	12.9
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.554	0.475	1.126798	-1.96	1.96	Not sig
0.406	0.396	0.1450049	-1.96	1.96	Not sig
0.04	0.129	-2.3036106	-1.96	1.96	Sig
101	101				

Question 6: Current, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	31	30.7	30.7
	More Important	48	47.5	47.5
	Critical	22	21.8	21.8
	Total	101	100.0	100.0

Question 6: Future, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	29	28.7	28.7
	More Important	32	31.7	31.7
	Critical	40	39.6	39.6
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.307	0.287	0.3111171	-1.96	1.96	Not sig
0.475	0.317	2.3263655	-1.96	1.96	Sig
0.218	0.396	-2.794917	-1.96	1.96	Sig
101	101				

Question 7: Current, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	64	63.4	63.4
	More Important	34	33.7	33.7
	Critical	3	3.0	3.0
	Total	101	100.0	100.0

Question 7: Future, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	73	72.3	72.3
	More Important	22	21.8	21.8
	Critical	6	5.9	5.9
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.634	0.723	-1.3603496	-1.96	1.96	Not sig
0.337	0.218	1.9055081	-1.96	1.96	Not sig
0.03	0.059	-1.0019008	-1.96	1.96	Not sig
101	101				

Question 7: Current, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	12	11.9	11.9
	More Important	38	37.6	37.6
	Critical	51	50.5	50.5
	Total	101	100.0	100.0

Question 7: Future, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	6	5.9	5.9
	More Important	48	47.5	47.5
	Critical	47	46.5	46.5
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.119	0.059	1.5057977	-1.96	1.96	Not sig
0.376	0.475	-1.4301238	-1.96	1.96	Not sig
0.505	0.465	0.5692188	-1.96	1.96	Not sig
101	101				

Question 7: Current, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	23	22.8	22.8
	More Important	31	30.7	30.7
	Critical	47	46.5	46.5
	Total	101	100.0	100.0

Question 7: Future, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	21	20.8	20.8
	More Important	32	31.7	31.7
	Critical	48	47.5	47.5
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.228	0.208	0.3443273	-1.96	1.96	Not sig
0.307	0.317	-0.1533909	-1.96	1.96	Not sig
0.465	0.475	-0.1423904	-1.96	1.96	Not sig
101	101				

Question 8: Current, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	23	22.8	22.8
	More Important	31	30.7	30.7
	Critical	47	46.5	46.5
	Total	101	100.0	100.0

Question 8: Future, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	31	30.7	30.7
	More Important	32	31.7	31.7
	Critical	38	37.6	37.6
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.228	0.307	-1.2733362	-1.96	1.96	Not sig
0.307	0.317	-0.1533909	-1.96	1.96	Not sig
0.465	0.376	1.2864645	-1.96	1.96	Not sig
101	101				

Question 8: Current, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	32	31.7	32.3
	More Important	38	37.6	38.4
	Critical	29	28.7	29.3
	Total	99	98.0	100.0
Missing	System	2	2.0	
Total		101	100.0	

Question 8: Future, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	36	35.6	35.6
	More Important	48	47.5	47.5
	Critical	17	16.8	16.8
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.323	0.356	-0.4931012	-1.96	1.96	Not sig
0.384	0.475	-1.3055547	-1.96	1.96	Not sig
0.293	0.168	2.120059	-1.96	1.96	Sig
99	101				

Question 8: Current, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	45	44.6	44.6
	More Important	34	33.7	33.7
	Critical	22	21.8	21.8
	Total	101	100.0	100.0

Question 8: Future, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	33	32.7	32.7
	More Important	23	22.8	22.8
	Critical	45	44.6	44.6
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.446	0.327	1.7497546	-1.96	1.96	Not sig
0.337	0.228	1.7332356	-1.96	1.96	Not sig
0.218	0.446	-3.5459784	-1.96	1.96	Sig
101	101				

Question 9: Current, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	32	31.7	31.7
	More Important	41	40.6	40.6
	Critical	28	27.7	27.7
	Total	101	100.0	100.0

Question 9: Future, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	48	47.5	47.5
	More Important	41	40.6	40.6
	Critical	12	11.9	11.9
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.317	0.475	-2.3263655	-1.96	1.96	Sig
0.406	0.406	0	-1.96	1.96	Not sig
0.277	0.119	2.8746803	-1.96	1.96	Sig
101	101				

Question 9: Current, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	36	35.6	35.6
	More Important	36	35.6	35.6
	Critical	29	28.7	28.7
	Total	101	100.0	100.0

Question 9: Future, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	48	47.5	47.5
	More Important	46	45.5	45.5
	Critical	7	6.9	6.9
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.356	0.475	-1.7286362	-1.96	1.96	Not sig
0.356	0.455	-1.440217	-1.96	1.96	Not sig
0.287	0.069	4.2251877	-1.96	1.96	Sig
101	101				

Question 9: Current, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	33	32.7	32.7
	More Important	25	24.8	24.8
	Critical	43	42.6	42.6
	Total	101	100.0	100.0

Question 9: Future, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	6	5.9	5.9
	More Important	11	10.9	10.9
	Critical	84	83.2	83.2
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.327	0.059	5.130548	-1.96	1.96	Sig
0.248	0.109	2.6230761	-1.96	1.96	Sig
0.426	0.832	-6.5819038	-1.96	1.96	Sig
101	101				

Question 10: Current, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	26	25.7	25.7
	More Important	36	35.6	35.6
	Critical	39	38.6	38.6
	Total	101	100.0	100.0

Question 10: Future, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	10	9.9	9.9
	More Important	41	40.6	40.6
	Critical	50	49.5	49.5
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.257	0.099	3.0000083	-1.96	1.96	Sig
0.356	0.406	-0.732629	-1.96	1.96	Not sig
0.386	0.495	-1.5697557	-1.96	1.96	Not sig
101	101				

Question 10: Current, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	46	45.5	45.5
	More Important	39	38.6	38.6
	Critical	16	15.8	15.8
	Total	101	100.0	100.0

Question 10: Future, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	81	80.2	80.2
	More Important	18	17.8	17.8
	Critical	2	2.0	2.0
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.455	0.802	-5.4678321	-1.96	1.96	Sig
0.386	0.178	3.3763175	-1.96	1.96	Sig
0.158	0.02	3.5498605	-1.96	1.96	Sig
101	101				

Question 10: Current, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	27	26.7	26.7
	More Important	29	28.7	28.7
	Critical	45	44.6	44.6
	Total	101	100.0	100.0

Question 10: Future, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	9	8.9	8.9
	More Important	42	41.6	41.6
	Critical	50	49.5	49.5
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.267	0.089	3.4002081	-1.96	1.96	Sig
0.287	0.416	-1.9378381	-1.96	1.96	Not sig
0.446	0.495	-0.6984781	-1.96	1.96	Not sig
101	101				

Question 11: Current, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	21	20.8	20.8
	More Important	21	20.8	20.8
	Critical	59	58.4	58.4
	Total	101	100.0	100.0

Question 11: Future, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	41	40.6	40.6
	More Important	30	29.7	29.7
	Critical	30	29.7	29.7
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.208	0.406	-3.1233191	-1.96	1.96	Sig
0.208	0.297	-1.4634898	-1.96	1.96	Not sig
0.584	0.297	4.291417	-1.96	1.96	Sig
101	101				

Question 11: Current, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	39	38.6	38.6
	More Important	45	44.6	44.6
	Critical	17	16.8	16.8
	Total	101	100.0	100.0

Question 11: Future, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	51	50.5	50.5
	More Important	37	36.6	36.6
	Critical	13	12.9	12.9
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.386	0.505	-1.71377	-1.96	1.96	Not sig
0.446	0.366	1.1615152	-1.96	1.96	Not sig
0.168	0.129	0.7805644	-1.96	1.96	Not sig
101	101				

Question 11: Current, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	40	39.6	39.6
	More Important	36	35.6	35.6
	Critical	25	24.8	24.8
	Total	101	100.0	100.0

Question 11: Future, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	7	6.9	6.9
	More Important	39	38.6	38.6
	Critical	55	54.5	54.5
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.396	0.069	5.9660129	-1.96	1.96	Sig
0.356	0.386	-0.441534	-1.96	1.96	Not sig
0.248	0.545	-4.5283161	-1.96	1.96	Sig
101	101				

Question 12: Current, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	14	13.9	13.9
	More Important	35	34.7	34.7
	Critical	52	51.5	51.5
	Total	101	100.0	100.0

Question 12: Future, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	11	10.9	10.9
	More Important	47	46.5	46.5
	Critical	43	42.6	42.6
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.139	0.109	0.6475217	-1.96	1.96	Not sig
0.347	0.465	-1.7200007	-1.96	1.96	Not sig
0.515	0.426	1.2722013	-1.96	1.96	Not sig
101	101				

Question 12: Current, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	49	48.5	48.5
	More Important	38	37.6	37.6
	Critical	14	13.9	13.9
	Total	101	100.0	100.0

Question 12: Future, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	61	60.4	60.4
	More Important	34	33.7	33.7
	Critical	6	5.9	5.9
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.485	0.604	-1.7102966	-1.96	1.96	Not sig
0.376	0.337	0.5791172	-1.96	1.96	Not sig
0.139	0.059	1.9208175	-1.96	1.96	Not sig
101	101				

Question 12: Current, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	36	35.6	35.6
	More Important	34	33.7	33.7
	Critical	31	30.7	30.7
	Total	101	100.0	100.0

Question 12: Future, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	26	25.7	25.7
	More Important	26	25.7	25.7
	Critical	49	48.5	48.5
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.356	0.257	1.5348294	-1.96	1.96	Not sig
0.337	0.257	1.2489649	-1.96	1.96	Not sig
0.307	0.485	-2.6303444	-1.96	1.96	Sig
101	101				

Question 13: Current, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	15	14.9	14.9
	More Important	30	29.7	29.7
	Critical	56	55.4	55.4
	Total	101	100.0	100.0

Question 13: Current, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	43	42.6	42.6
	More Important	27	26.7	26.7
	Critical	31	30.7	30.7
	Total	101	100.0	100.0

Question 1: Future, Complexity Level II	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.149	0.426	-4.5684043	-1.96	1.96	Sig
0.297	0.267	0.4740472	-1.96	1.96	Not sig
0.554	0.307	3.6606367	-1.96	1.96	Sig
101	101				

Question 13: Current, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	27	26.7	26.7
	More Important	46	45.5	45.5
	Critical	28	27.7	27.7
	Total	101	100.0	100.0

Question 13: Future, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	13	12.9	12.9
	More Important	33	32.7	32.7
	Critical	55	54.5	54.5
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.267	0.129	2.4987055	-1.96	1.96	Sig
0.455	0.327	1.8802967	-1.96	1.96	Not sig
0.277	0.545	-4.0228818	-1.96	1.96	Sig
101	101				

Question 13: Current, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	56	55.4	55.4
	More Important	30	29.7	29.7
	Critical	15	14.9	14.9
	Total	101	100.0	100.0

Question 13: Future, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	44	43.6	43.6
	More Important	42	41.6	41.6
	Critical	15	14.9	14.9
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.554	0.436	1.6889801	-1.96	1.96	Not sig
0.297	0.416	-1.779368	-1.96	1.96	Not sig
0.149	0.149	0	-1.96	1.96	Not sig
101	101				

Question 14: Current, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	37	36.6	36.6
	More Important	44	43.6	43.6
	Critical	20	19.8	19.8
	Total	101	100.0	100.0

Question 14: Future, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	54	53.5	53.5
	More Important	40	39.6	39.6
	Critical	7	6.9	6.9
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.366	0.535	-2.4493823	-1.96	1.96	Sig
0.436	0.396	0.5771789	-1.96	1.96	Not sig
0.198	0.069	2.7451361	-1.96	1.96	Sig
101	101				

Question 14: Current, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	39	38.6	38.6
	More Important	42	41.6	41.6
	Critical	20	19.8	19.8
	Total	101	100.0	100.0

Question 14: Future, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	43	42.6	42.6
	More Important	51	50.5	50.5
	Critical	7	6.9	6.9
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.386	0.426	-0.5793085	-1.96	1.96	Not sig
0.416	0.505	-1.2739809	-1.96	1.96	Not sig
0.198	0.069	2.7451361	-1.96	1.96	Sig
101	101				

Question 14: Current, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	24	23.8	23.8
	More Important	18	17.8	17.8
	Critical	59	58.4	58.4
	Total	101	100.0	100.0

Question 14: Future, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	3	3.0	3.0
	More Important	13	12.9	12.9
	Critical	85	84.2	84.2
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.238	0.03	4.5566258	-1.96	1.96	Sig
0.178	0.129	0.9682322	-1.96	1.96	Not sig
0.584	0.842	-4.2286138	-1.96	1.96	Sig
101	101				

Question 15: Current, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	77	76.2	76.2
	More Important	12	11.9	11.9
	Critical	12	11.9	11.9
	Total	101	100.0	100.0

Question 15: Future, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	69	68.3	68.3
	More Important	13	12.9	12.9
	Critical	19	18.8	18.8
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.762	0.683	1.2586901	-1.96	1.96	Not sig
0.119	0.129	-0.2156417	-1.96	1.96	Not sig
0.119	0.188	-1.3665495	-1.96	1.96	Not sig
101	101				

Question 15: Current, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	13	12.9	12.9
	More Important	14	13.9	13.9
	Critical	74	73.3	73.3
	Total	101	100.0	100.0

Question 15: Future, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	20	19.8	19.8
	More Important	15	14.9	14.9
	Critical	66	65.3	65.3
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.129	0.198	-1.3316833	-1.96	1.96	Not sig
0.139	0.149	-0.2024285	-1.96	1.96	Not sig
0.733	0.653	1.2371977	-1.96	1.96	Not sig
101	101				

Question 15: Current, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	12	11.9	11.9
	More Important	76	75.2	75.2
	Critical	13	12.9	12.9
	Total	101	100.0	100.0

Question 15: Future, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	13	12.9	12.9
	More Important	72	71.3	71.3
	Critical	16	15.8	15.8
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.119	0.129	-0.2156417	-1.96	1.96	Not sig
0.752	0.713	0.6267097	-1.96	1.96	Not sig
0.129	0.158	-0.5883366	-1.96	1.96	Not sig
101	101				

Question 16: Current, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	25	24.8	24.8
	More Important	54	53.5	53.5
	Critical	22	21.8	21.8
	Total	101	100.0	100.0

Question 16: Future, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	47	46.5	46.5
	More Important	45	44.6	44.6
	Critical	9	8.9	8.9
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.248	0.465	-3.3055258	-1.96	1.96	Sig
0.535	0.446	1.2701985	-1.96	1.96	Not sig
0.218	0.089	2.5848415	-1.96	1.96	Sig
101	101				

Question 16: Current, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	52	51.5	52.0
	More Important	38	37.6	38.0
	Critical	10	9.9	10.0
	Total	100	99.0	100.0
Missing	System	1	1.0	
Total		101	100.0	

Question 16: Future, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	50	49.5	49.5
	More Important	49	48.5	48.5
	Critical	2	2.0	2.0
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.52	0.495	0.3545832	-1.96	1.96	Not sig
0.38	0.485	-1.5109838	-1.96	1.96	Not sig
0.1	0.02	2.4186306	-1.96	1.96	Sig
100	101				

Question 16: Current, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	19	18.8	18.8
	More Important	11	10.9	10.9
	Critical	71	70.3	70.3
	Total	101	100.0	100.0

Question 16: Future, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	1	1.0	1.0
	More Important	8	7.9	7.9
	Critical	92	91.1	91.1
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.188	0.01	4.4368954	-1.96	1.96	Sig
0.109	0.079	0.7314984	-1.96	1.96	Not sig
0.703	0.911	-3.8825976	-1.96	1.96	Sig
101	101				

Question 17: Current, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	46	45.5	45.5
	More Important	19	18.8	18.8
	Critical	36	35.6	35.6
	Total	101	100.0	100.0

Question 17: Future, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	75	74.3	74.3
	More Important	18	17.8	17.8
	Critical	8	7.9	7.9
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.455	0.743	-4.3687533	-1.96	1.96	Sig
0.188	0.178	0.1838	-1.96	1.96	Not sig
0.356	0.079	5.0654782	-1.96	1.96	Sig
101	101				

Question 17: Current, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	12	11.9	11.9
	More Important	62	61.4	61.4
	Critical	27	26.7	26.7
	Total	101	100.0	100.0

Question 17: Future, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	13	12.9	12.9
	More Important	74	73.3	73.3
	Critical	14	13.9	13.9
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.119	0.129	-0.2156417	-1.96	1.96	Not sig
0.614	0.733	-1.8180536	-1.96	1.96	Not sig
0.267	0.139	2.2905865	-1.96	1.96	Sig
101	101				

Question 17: Current, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	40	39.6	39.6
	More Important	24	23.8	23.8
	Critical	37	36.6	36.6
	Total	101	100.0	100.0

Question 17: Future, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	10	9.9	9.9
	More Important	13	12.9	12.9
	Critical	78	77.2	77.2
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.396	0.099	5.2086695	-1.96	1.96	Sig
0.238	0.129	2.021269	-1.96	1.96	Sig
0.366	0.772	-6.3874087	-1.96	1.96	Sig
101	101				

Question 18: Current, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	24	23.8	23.8
	More Important	47	46.5	46.5
	Critical	30	29.7	29.7
	Total	101	100.0	100.0

Question 18: Future, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	39	38.6	38.6
	More Important	60	59.4	59.4
	Critical	2	2.0	2.0
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.238	0.386	-2.2995737	-1.96	1.96	Sig
0.465	0.594	-1.8521638	-1.96	1.96	Not sig
0.297	0.02	5.8250675	-1.96	1.96	Sig
101	101				

Question 18: Current, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	35	34.7	34.7
	More Important	40	39.6	39.6
	Critical	26	25.7	25.7
	Total	101	100.0	100.0

Question 18: Future, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	57	56.4	56.4
	More Important	33	32.7	32.7
	Critical	11	10.9	10.9
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.347	0.564	-3.1726474	-1.96	1.96	Sig
0.396	0.327	1.0232525	-1.96	1.96	Not sig
0.257	0.109	2.7712352	-1.96	1.96	Sig
101	101				

Question 18: Current, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	41	40.6	40.6
	More Important	16	15.8	15.8
	Critical	44	43.6	43.6
	Total	101	100.0	100.0

Question 18: Future, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	4	4.0	4.0
	More Important	8	7.9	7.9
	Critical	89	88.1	88.1
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.406	0.04	6.9566659	-1.96	1.96	Sig
0.158	0.079	1.7501302	-1.96	1.96	Not sig
0.436	0.881	-7.5513777	-1.96	1.96	Sig
101	101				

Question 19: Current, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	49	48.5	48.5
	More Important	23	22.8	22.8
	Critical	29	28.7	28.7
	Total	101	100.0	100.0

Question 19: Future, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	88	87.1	87.1
	More Important	11	10.9	10.9
	Critical	2	2.0	2.0
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.485	0.871	-6.446342	-1.96	1.96	Sig
0.228	0.109	2.2883317	-1.96	1.96	Sig
0.287	0.02	5.6666204	-1.96	1.96	Sig
101	101				

Question 19: Current, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	4	4.0	4.0
	More Important	56	55.4	55.4
	Critical	41	40.6	40.6
	Total	101	100.0	100.0

Question 19: Future, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	1	1.0	1.0
	More Important	71	70.3	70.3
	Critical	29	28.7	28.7
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.04	0.01	1.3718555	-1.96	1.96	Not sig
0.554	0.703	-2.2178086	-1.96	1.96	Sig
0.406	0.287	1.7911834	-1.96	1.96	Not sig
101	101				

Question 19: Current, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	48	47.5	47.5
	More Important	22	21.8	21.8
	Critical	31	30.7	30.7
	Total	101	100.0	100.0

Question 19: Future, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	12	11.9	11.9
	More Important	19	18.8	18.8
	Critical	70	69.3	69.3
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.475	0.119	6.0114304	-1.96	1.96	Sig
0.218	0.188	0.5303859	-1.96	1.96	Not sig
0.307	0.693	-5.9469897	-1.96	1.96	Sig
101	101				

Question 20: Current, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	37	36.6	36.6
	More Important	54	53.5	53.5
	Critical	10	9.9	9.9
	Total	101	100.0	100.0

Question 20: Future, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	56	55.4	55.4
	More Important	39	38.6	38.6
	Critical	6	5.9	5.9
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.366	0.554	-2.7295607	-1.96	1.96	Sig
0.535	0.386	2.1484616	-1.96	1.96	Sig
0.099	0.059	1.0567187	-1.96	1.96	Not sig
101	101				

Question 20: Current, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	3	3.0	3.0
	More Important	25	24.8	24.8
	Critical	73	72.3	72.3
	Total	101	100.0	100.0

Question 20: Future, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	5	5.0	5.0
	More Important	44	43.6	43.6
	Critical	52	51.5	51.5
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.03	0.05	-0.7262335	-1.96	1.96	Not sig
0.248	0.436	-2.8732651	-1.96	1.96	Sig
0.723	0.515	3.1159865	-1.96	1.96	Sig
101	101				

Question 20: Current, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	60	59.4	59.4
	More Important	23	22.8	22.8
	Critical	18	17.8	17.8
	Total	101	100.0	100.0

Question 20: Future, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	40	39.6	39.6
	More Important	18	17.8	17.8
	Critical	43	42.6	42.6
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.594	0.396	2.8710971	-1.96	1.96	Sig
0.228	0.178	0.8850728	-1.96	1.96	Not sig
0.178	0.426	-3.9866937	-1.96	1.96	Sig
101	101				

Question 21: Current, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	28	27.7	27.7
	More Important	31	30.7	30.7
	Critical	42	41.6	41.6
	Total	101	100.0	100.0

Question 21: Future, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	15	14.9	14.9
	More Important	24	23.8	23.8
	Critical	62	61.4	61.4
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.277	0.149	2.2493151	-1.96	1.96	Sig
0.307	0.238	1.1045941	-1.96	1.96	Not sig
0.416	0.614	-2.8722933	-1.96	1.96	Sig
101	101				

Question 21: Current, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	37	36.6	36.6
	More Important	23	22.8	22.8
	Critical	41	40.6	40.6
	Total	101	100.0	100.0

Question 21: Future, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	55	54.5	54.5
	More Important	32	31.7	31.7
	Critical	14	13.9	13.9
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.366	0.545	-2.5964771	-1.96	1.96	Sig
0.228	0.317	-1.4276309	-1.96	1.96	Not sig
0.406	0.139	4.4669676	-1.96	1.96	Sig
101	101				

Question 21: Current, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	37	36.6	36.6
	More Important	46	45.5	45.5
	Critical	18	17.8	17.8
	Total	101	100.0	100.0

Question 21: Future, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	32	31.7	31.7
	More Important	44	43.6	43.6
	Critical	25	24.8	24.8
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.366	0.317	0.7352735	-1.96	1.96	Not sig
0.455	0.436	0.271709	-1.96	1.96	Not sig
0.178	0.248	-1.2194366	-1.96	1.96	Not sig
101	101				

Question 22: Current, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	15	14.9	14.9
	More Important	68	67.3	67.3
	Critical	18	17.8	17.8
	Total	101	100.0	100.0

Question 22: Future, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	14	13.9	13.9
	More Important	70	69.3	69.3
	Critical	17	16.8	16.8
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.149	0.139	0.2024285	-1.96	1.96	Not sig
0.673	0.693	-0.3055174	-1.96	1.96	Not sig
0.178	0.168	0.1878918	-1.96	1.96	Not sig
101	101				

Question 22: Current, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	61	60.4	60.4
	More Important	13	12.9	12.9
	Critical	27	26.7	26.7
	Total	101	100.0	100.0

Question 22: Future, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	77	76.2	76.2
	More Important	20	19.8	19.8
	Critical	4	4.0	4.0
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.604	0.762	-2.448579	-1.96	1.96	Sig
0.129	0.198	-1.3316833	-1.96	1.96	Not sig
0.267	0.04	4.7149342	-1.96	1.96	Sig
101	101				

Question 22: Current, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	24	23.8	23.8
	More Important	22	21.8	21.8
	Critical	55	54.5	54.5
	Total	101	100.0	100.0

Question22: Future, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	9	8.9	8.9
	More Important	11	10.9	10.9
	Critical	81	80.2	80.2
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.238	0.089	2.9230489	-1.96	1.96	Sig
0.218	0.109	2.1176208	-1.96	1.96	Sig
0.545	0.802	-4.0496624	-1.96	1.96	Sig

Question 23: Current, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	48	47.5	47.5
	More Important	21	20.8	20.8
	Critical	32	31.7	31.7
	Total	101	100.0	100.0

Question 23: Future, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	68	67.3	67.3
	More Important	18	17.8	17.8
	Critical	15	14.9	14.9
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.475	0.673	-2.9042437	-1.96	1.96	Sig
0.208	0.178	0.5405868	-1.96	1.96	Not sig
0.317	0.149	2.8815539	-1.96	1.96	Sig
101	101				

Question 23: Current, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	15	14.9	14.9
	More Important	37	36.6	36.6
	Critical	49	48.5	48.5
	Total	101	100.0	100.0

Question 23: Future, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	15	14.9	14.9
	More Important	57	56.4	56.4
	Critical	29	28.7	28.7
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.149	0.149	0	-1.96	1.96	Not sig
0.366	0.564	-2.8782967	-1.96	1.96	Sig
0.485	0.287	2.951915	-1.96	1.96	Sig
101	101				

Question 23: Current, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	37	36.6	36.6
	More Important	47	46.5	46.5
	Critical	17	16.8	16.8
	Total	101	100.0	100.0

Question 23: Future, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	17	16.8	16.8
	More Important	30	29.7	29.7
	Critical	54	53.5	53.5
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.366	0.168	3.2633188	-1.96	1.96	Sig
0.465	0.297	2.4959915	-1.96	1.96	Sig
0.168	0.535	-5.9170159	-1.96	1.96	Sig
101	101				

Question 24: Current, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	47	46.5	46.5
	More Important	38	37.6	37.6
	Critical	16	15.8	15.8
	Total	101	100.0	100.0

Question 24: Future, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	66	65.3	65.3
	More Important	35	34.7	34.7
	Critical	0	0	0
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.465	0.653	-2.7403402	-1.96	1.96	Sig
0.376	0.347	0.4291479	-1.96	1.96	Not sig
0.158	0	4.3534462	-1.96	1.96	Sig
101	101				

Question 24: Current, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	12	11.9	11.9
	More Important	38	37.6	37.6
	Critical	51	50.5	50.5
	Total	101	100.0	100.0

Question 24: Future, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	5	5.0	5.0
	More Important	42	41.6	41.6
	Critical	54	53.5	53.5
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.119	0.05	1.7766596	-1.96	1.96	Not sig
0.376	0.416	-0.5817054	-1.96	1.96	Not sig
0.505	0.535	-0.4269141	-1.96	1.96	Not sig
101	101				

Question 24: Current, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	41	40.6	40.6
	More Important	26	25.7	25.7
	Critical	34	33.7	33.7
	Total	101	100.0	100.0

Question 24: Future, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	29	28.7	28.7
	More Important	25	24.8	24.8
	Critical	47	46.5	46.5
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.406	0.287	1.7911834	-1.96	1.96	Not sig
0.257	0.248	0.1472228	-1.96	1.96	Not sig
0.337	0.465	-1.871996	-1.96	1.96	Not sig
101	101				

Question 25: Current, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	34	33.7	33.7
	More Important	55	54.5	54.5
	Critical	12	11.9	11.9
	Total	101	100.0	100.0

Question 25: Future, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	43	42.6	42.6
	More Important	52	51.5	51.5
	Critical	6	5.9	5.9
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.337	0.426	-1.3075209	-1.96	1.96	Not sig
0.545	0.515	0.4273427	-1.96	1.96	Not sig
0.119	0.059	1.5057977	-1.96	1.96	Not sig
101	101				

Question 25: Current, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	29	28.7	28.7
	More Important	29	28.7	28.7
	Critical	43	42.6	42.6
	Total	101	100.0	100.0

Question 25: Future, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	55	54.5	54.5
	More Important	39	38.6	38.6
	Critical	7	6.9	6.9
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.287	0.545	-3.8540757	-1.96	1.96	Sig
0.287	0.386	-1.4971459	-1.96	1.96	Not sig
0.426	0.069	6.4567843	-1.96	1.96	Sig
101	101				

Question 25: Current, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	37	36.6	36.6
	More Important	19	18.8	18.8
	Critical	45	44.6	44.6
	Total	101	100.0	100.0

Question 25: Future, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	2	2.0	2.0
	More Important	12	11.9	11.9
	Critical	87	86.1	86.1
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.366	0.02	6.9317597	-1.96	1.96	Sig
0.188	0.119	1.3665495	-1.96	1.96	Not sig
0.446	0.861	-6.8867771	-1.96	1.96	Sig
101	101				

Question 26: Current, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	55	54.5	54.5
	More Important	28	27.7	27.7
	Critical	18	17.8	17.8
	Total	101	100.0	100.0

Question 26: Future, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	48	47.5	47.5
	More Important	36	35.6	35.6
	Critical	17	16.8	16.8
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.545	0.475	0.9975339	-1.96	1.96	Not sig
0.277	0.356	-1.2114026	-1.96	1.96	Not sig
0.178	0.168	0.1878918	-1.96	1.96	Not sig
101	101				

Question 26: Current, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	8	7.9	7.9
	More Important	45	44.6	44.6
	Critical	48	47.5	47.5
	Total	101	100.0	100.0

Question 26: Future, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	28	27.7	27.7
	More Important	47	46.5	46.5
	Critical	26	25.7	25.7
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.079	0.277	-3.8082083	-1.96	1.96	Sig
0.446	0.465	-0.271166	-1.96	1.96	Not sig
0.475	0.257	3.3016423	-1.96	1.96	Sig
101	101				

Question 26: Current, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	37	36.6	36.6
	More Important	28	27.7	27.7
	Critical	36	35.6	35.6
	Total	101	100.0	100.0

Question 26: Future, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	24	23.8	23.8
	More Important	20	19.8	19.8
	Critical	57	56.4	56.4
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.366	0.238	2.0007159	-1.96	1.96	Sig
0.277	0.198	1.3249517	-1.96	1.96	Not sig
0.356	0.564	-3.0324973	-1.96	1.96	Sig
101	101				

Question 27: Current, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	25	24.8	24.8
	More Important	32	31.7	31.7
	Critical	44	43.6	43.6
	Total	101	100.0	100.0

Question 27: Future, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	27	26.7	26.7
	More Important	39	38.6	38.6
	Critical	35	34.7	34.7
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.248	0.267	-0.3088623	-1.96	1.96	Not sig
0.317	0.386	-1.0297077	-1.96	1.96	Not sig
0.436	0.347	1.3012241	-1.96	1.96	Not sig
101	101				

Question 27: Current, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	15	14.9	14.9
	More Important	42	41.6	41.6
	Critical	44	43.6	43.6
	Total	101	100.0	100.0

Question 27: Future, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	47	46.5	46.5
	More Important	39	38.6	38.6
	Critical	15	14.9	14.9
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.149	0.465	-5.182031	-1.96	1.96	Sig
0.416	0.386	0.435196	-1.96	1.96	Not sig
0.436	0.149	4.7245575	-1.96	1.96	Sig
101	101				

Question 27: Current, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	60	59.4	59.4
	More Important	29	28.7	28.7
	Critical	12	11.9	11.9
	Total	101	100.0	100.0

Question 27: Future, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	26	25.7	25.7
	More Important	23	22.8	22.8
	Critical	52	51.5	51.5
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.594	0.257	5.1521787	-1.96	1.96	Sig
0.287	0.228	0.9610622	-1.96	1.96	Not sig
0.119	0.515	-6.6830996	-1.96	1.96	Sig
101	101				

Question 28: Current, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	48	47.5	47.5
	More Important	26	25.7	25.7
	Critical	27	26.7	26.7
	Total	101	100.0	100.0

Question 28: Future, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	84	83.2	83.2
	More Important	10	9.9	9.9
	Critical	7	6.9	6.9
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.475	0.832	-5.7513504	-1.96	1.96	Sig
0.257	0.099	3.0000083	-1.96	1.96	Sig
0.267	0.069	3.902842	-1.96	1.96	Sig
101	101				

Question 28: Current, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	4	4.0	4.0
	More Important	40	39.6	39.6
	Critical	57	56.4	56.4
	Total	101	100.0	100.0

Question 28: Future, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	3	3.0	3.0
	More Important	59	58.4	58.4
	Critical	39	38.6	38.6
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.04	0.03	0.3868199	-1.96	1.96	Not sig
0.396	0.584	-2.7210552	-1.96	1.96	Sig
0.564	0.386	2.5742368	-1.96	1.96	Sig
101	101				

Question 28: Current, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	48	47.5	47.5
	More Important	36	35.6	35.6
	Critical	17	16.8	16.8
	Total	101	100.0	100.0

Question 28: Future, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	13	12.9	12.9
	More Important	33	32.7	32.7
	Critical	55	54.5	54.5
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.475	0.129	5.7815212	-1.96	1.96	Sig
0.356	0.327	0.434784	-1.96	1.96	Not sig
0.168	0.545	-6.0845095	-1.96	1.96	Sig
101	101				

Question 29: Current, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	47	46.5	46.5
	More Important	26	25.7	25.7
	Critical	28	27.7	27.7
	Total	101	100.0	100.0

Question 29: Future, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	74	73.3	73.3
	More Important	12	11.9	11.9
	Critical	15	14.9	14.9
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.465	0.733	-4.0398611	-1.96	1.96	Sig
0.257	0.119	2.5500461	-1.96	1.96	Sig
0.277	0.149	2.2493151	-1.96	1.96	Sig
101	101				

Question 29: Current, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	16	15.8	15.8
	More Important	55	54.5	54.5
	Critical	30	29.7	29.7
	Total	101	100.0	100.0

Question 29: Future, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	13	12.9	12.9
	More Important	83	82.2	82.2
	Critical	5	5.0	5.0
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.158	0.129	0.5883366	-1.96	1.96	Not sig
0.545	0.822	-4.4333501	-1.96	1.96	Sig
0.297	0.05	4.9033282	-1.96	1.96	Sig
101	101				

Question 29: Current, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	38	37.6	37.6
	More Important	22	21.8	21.8
	Critical	41	40.6	40.6
	Total	101	100.0	100.0

Question 29: Future, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	14	13.9	13.9
	More Important	6	5.9	5.9
	Critical	81	80.2	80.2
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.376	0.139	4.0014889	-1.96	1.96	Sig
0.218	0.059	3.3613087	-1.96	1.96	Sig
0.406	0.802	-6.2928531	-1.96	1.96	Sig
101	101				

Question 30: Current, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	46	45.5	45.5
	More Important	19	18.8	18.8
	Critical	36	35.6	35.6
	Total	101	100.0	100.0

Question 30: Future, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	85	84.2	84.2
	More Important	16	15.8	15.8
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.455	0.842	-6.3009045	-1.96	1.96	Sig
0.188	0.158	0.5640699	-1.96	1.96	Not sig
0.356		7.4721013	-1.96	1.96	Sig
101	101				

Question 30: Current, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	2	2.0	2.0
	More Important	58	57.4	57.4
	Critical	41	40.6	40.6
	Total	101	100.0	100.0

Question 30: Future, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	11	10.9	10.9
	More Important	74	73.3	73.3
	Critical	16	15.8	15.8
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.02	0.109	-2.6180619	-1.96	1.96	Sig
0.574	0.733	-2.4083274	-1.96	1.96	Sig
0.406	0.158	4.0743701	-1.96	1.96	Sig
101	101				

Question 30: Current, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	50	49.5	51.0
	More Important	24	23.8	24.5
	Critical	24	23.8	24.5
	Total	98	97.0	100.0
Missing	System	3	3.0	
Total		101	100.0	

Question 30: Future, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	5	5.0	5.0
	More Important	10	9.9	9.9
	Critical	86	85.1	85.1
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.51	0.05	8.3701454	-1.96	1.96	Sig
0.245	0.099	2.773712	-1.96	1.96	Sig
0.245	0.851	-10.809482	-1.96	1.96	Sig
98	101				

Question 31: Current, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	29	28.7	28.7
	More Important	32	31.7	31.7
	Critical	40	39.6	39.6
	Total	101	100.0	100.0

Question 31: Future, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	69	68.3	68.3
	More Important	24	23.8	23.8
	Critical	8	7.9	7.9
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.287	0.683	-6.132557	-1.96	1.96	Sig
0.317	0.238	1.2586901	-1.96	1.96	Not sig
0.396	0.079	5.7040369	-1.96	1.96	Sig
101	101				

Question 31: Current, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	40	39.6	40.0
	More Important	37	36.6	37.0
	Critical	23	22.8	23.0
	Total	100	99.0	100.0
Missing	System	1	1.0	
Total		101	100.0	

Question 31: Future, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	25	24.8	24.8
	More Important	58	57.4	57.4
	Critical	18	17.8	17.8
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.4	0.248	2.3325356	-1.96	1.96	Sig
0.37	0.574	-2.9593109	-1.96	1.96	Sig
0.23	0.178	0.9164261	-1.96	1.96	Not sig
100	101				

Question 31: Current, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	31	30.7	30.7
	More Important	33	32.7	32.7
	Critical	37	36.6	36.6
	Total	101	100.0	100.0

Question 31: Future, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	6	5.9	5.9
	More Important	20	19.8	19.8
	Critical	75	74.3	74.3
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.307	0.059	4.8120077	-1.96	1.96	Sig
0.327	0.198	2.1062359	-1.96	1.96	Sig
0.366	0.743	-5.8255163	-1.96	1.96	Sig
101	101				

Question 32: Current, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	53	52.5	52.5
	More Important	25	24.8	24.8
	Critical	23	22.8	22.8
	Total	101	100.0	100.0

Question 32: Future, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	86	85.1	85.1
	More Important	12	11.9	11.9
	Critical	3	3.0	3.0
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.525	0.851	-5.3417542	-1.96	1.96	Sig
0.248	0.119	2.4018953	-1.96	1.96	Sig
0.228	0.03	4.3936566	-1.96	1.96	Sig
101	101				

Question 32: Current, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	1	1.0	1.0
	More Important	48	47.5	47.5
	Critical	52	51.5	51.5
	Total	101	100.0	100.0

Question 32: Future, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	1	1.0	1.0
	More Important	64	63.4	63.4
	Critical	36	35.6	35.6
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.01	0.01	0	-1.96	1.96	Not sig
0.475	0.634	-2.303012	-1.96	1.96	Sig
0.515	0.356	2.3087259	-1.96	1.96	Sig
101	101				

Question 32: Current, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	46	45.5	45.5
	More Important	32	31.7	31.7
	Critical	23	22.8	22.8
	Total	101	100.0	100.0

Question 32: Future, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	13	12.9	12.9
	More Important	27	26.7	26.7
	Critical	61	60.4	60.4
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.455	0.129	5.4579011	-1.96	1.96	Sig
0.317	0.267	0.7826455	-1.96	1.96	Not sig
0.228	0.604	-5.8643497	-1.96	1.96	Sig
101	101				

Question 33: Current, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	20	19.8	19.8
	More Important	45	44.6	44.6
	Critical	36	35.6	35.6
	Total	101	100.0	100.0

Question 33: Future, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	50	49.5	49.5
	More Important	35	34.7	34.7
	Critical	16	15.8	15.8
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.198	0.495	-4.6684971	-1.96	1.96	Sig
0.446	0.347	1.445625	-1.96	1.96	Not sig
0.356	0.158	3.3059152	-1.96	1.96	Sig
101	101				

Question 33: Current, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	37	36.6	36.6
	More Important	44	43.6	43.6
	Critical	20	19.8	19.8
	Total	101	100.0	100.0

Question 33: Future, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	39	38.6	38.6
	More Important	48	47.5	47.5
	Critical	14	13.9	13.9
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.366	0.386	-0.2934824	-1.96	1.96	Not sig
0.436	0.475	-0.5569296	-1.96	1.96	Not sig
0.198	0.139	1.1236203	-1.96	1.96	Not sig
101	101				

Question 33: Current, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	41	40.6	41.4
	More Important	12	11.9	12.1
	Critical	46	45.5	46.5
	Total	99	98.0	100.0
Missing	System	2	2.0	
Total		101	100.0	

Question 33: Future, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	9	8.9	8.9
	More Important	18	17.8	17.8
	Critical	74	73.3	73.3
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.414	0.089	5.6979782	-1.96	1.96	Sig
0.121	0.178	-1.1347904	-1.96	1.96	Not sig
0.465	0.733	-4.0172139	-1.96	1.96	Sig
99	101				

Question 34: Current, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	33	32.7	32.7
	More Important	25	24.8	24.8
	Critical	43	42.6	42.6
	Total	101	100.0	100.0

Question 34: Future, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	42	41.6	42.4
	More Important	37	36.6	37.4
	Critical	20	19.8	20.2
	Total	99	98.0	100.0
Missing	System	2	2.0	
Total		101	100.0	

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.327	0.424	-1.4231153	-1.96	1.96	Not sig
0.248	0.374	-1.9415927	-1.96	1.96	Not sig
0.426	0.202	3.5201368	-1.96	1.96	Sig
101	99				

Question 34: Current, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	47	46.5	46.5
	More Important	42	41.6	41.6
	Critical	12	11.9	11.9
	Total	101	100.0	100.0

Question 34: Future, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	48	47.5	47.5
	More Important	48	47.5	47.5
	Critical	5	5.0	5.0
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.465	0.475	-0.1423904	-1.96	1.96	Not sig
0.416	0.475	-0.8450636	-1.96	1.96	Not sig
0.119	0.05	1.7766596	-1.96	1.96	Not sig
101	101				

Question 34: Current, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	18	17.8	17.8
	More Important	36	35.6	35.6
	Critical	47	46.5	46.5
	Total	101	100.0	100.0

Question 34: Future, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	8	7.9	7.9
	More Important	18	17.8	17.8
	Critical	75	74.3	74.3
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.178	0.079	2.1256878	-1.96	1.96	Sig
0.356	0.178	2.9189688	-1.96	1.96	Sig
0.465	0.743	-4.2132226	-1.96	1.96	Sig
101	101				

Question 35: Current, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	29	28.7	28.7
	More Important	27	26.7	26.7
	Critical	45	44.6	44.6
	Total	101	100.0	100.0

Question 35: Future, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	67	66.3	66.3
	More Important	22	21.8	21.8
	Critical	12	11.9	11.9
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.287	0.663	-5.7755745	-1.96	1.96	Sig
0.267	0.218	0.8137768	-1.96	1.96	Not sig
0.446	0.119	5.5396792	-1.96	1.96	Sig
101	101				

Question 35: Current, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	20	19.8	19.8
	More Important	58	57.4	57.4
	Critical	23	22.8	22.8
	Total	101	100.0	100.0

Question 35: Future, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	26	25.7	25.7
	More Important	73	72.3	72.3
	Critical	2	2.0	2.0
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.198	0.257	-1.0026185	-1.96	1.96	Not sig
0.574	0.723	-2.2452619	-1.96	1.96	Sig
0.228	0.02	4.726306	-1.96	1.96	Sig
101	101				

Question 35: Current, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	53	52.5	52.5
	More Important	15	14.9	14.9
	Critical	33	32.7	32.7
	Total	101	100.0	100.0

Question 35: Future, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	9	8.9	8.9
	More Important	5	5.0	5.0
	Critical	87	86.1	86.1
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.525	0.089	7.6223988	-1.96	1.96	Sig
0.149	0.05	2.3831338	-1.96	1.96	Sig
0.327	0.861	-9.2070862	-1.96	1.96	Sig
101	101				

Question 36: Current, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	28	27.7	27.7
	More Important	29	28.7	28.7
	Critical	44	43.6	43.6
	Total	101	100.0	100.0

Question 36: Future, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	58	57.4	57.4
	More Important	35	34.7	34.7
	Critical	8	7.9	7.9
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.277	0.574	-4.4754549	-1.96	1.96	Sig
0.287	0.347	-0.9182512	-1.96	1.96	Not sig
0.436	0.079	6.3556955	-1.96	1.96	Sig
101	101				

Question 36: Current, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	47	46.5	46.5
	More Important	36	35.6	35.6
	Critical	18	17.8	17.8
	Total	101	100.0	100.0

Question 36: Future, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	26	25.7	25.7
	More Important	38	37.6	37.6
	Critical	37	36.6	36.6
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.465	0.257	3.1523392	-1.96	1.96	Sig
0.356	0.376	-0.2951101	-1.96	1.96	Not sig
0.178	0.366	-3.071609	-1.96	1.96	Sig
101	101				

Question 36: Current, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	26	25.7	25.7
	More Important	35	34.7	34.7
	Critical	40	39.6	39.6
	Total	101	100.0	100.0

Question 36: Future, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	19	18.8	18.8
	More Important	26	25.7	25.7
	Critical	56	55.4	55.4
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.257	0.188	1.1829837	-1.96	1.96	Not sig
0.347	0.257	1.3997585	-1.96	1.96	Not sig
0.396	0.554	-2.2770886	-1.96	1.96	Sig
101	101				

Question 37: Current, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	30	29.7	29.7
	More Important	35	34.7	34.7
	Critical	36	35.6	35.6
	Total	101	100.0	100.0

Question 37: Future, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	63	62.4	62.4
	More Important	26	25.7	25.7
	Critical	12	11.9	11.9
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.297	0.624	-4.9351829	-1.96	1.96	Sig
0.347	0.257	1.3997585	-1.96	1.96	Not sig
0.356	0.119	4.1206796	-1.96	1.96	Sig
101	101				

Question 37: Current, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	20	19.8	19.8
	More Important	55	54.5	54.5
	Critical	26	25.7	25.7
	Total	101	100.0	100.0

Question 37: Future, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	16	15.8	15.8
	More Important	53	52.5	52.5
	Critical	32	31.7	31.7
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.198	0.158	0.7441393	-1.96	1.96	Not sig
0.545	0.525	0.2850097	-1.96	1.96	Not sig
0.257	0.317	-0.9446445	-1.96	1.96	Not sig
101	101				

Question 37: Current, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	52	51.5	51.5
	More Important	10	9.9	9.9
	Critical	39	38.6	38.6
	Total	101	100.0	100.0

Question 37: Future, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	21	20.8	20.8
	More Important	23	22.8	22.8
	Critical	57	56.4	56.4
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.515	0.208	4.7921569	-1.96	1.96	Sig
0.099	0.228	-2.5173949	-1.96	1.96	Sig
0.386	0.564	-2.5742368	-1.96	1.96	Sig
101	101				

Question 38: Current, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	28	27.7	27.7
	More Important	24	23.8	23.8
	Critical	49	48.5	48.5
	Total	101	100.0	100.0

Question 38: Future, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	25	24.8	24.8
	More Important	25	24.8	24.8
	Critical	51	50.5	50.5
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.277	0.248	0.4686342	-1.96	1.96	Not sig
0.238	0.248	-0.1657006	-1.96	1.96	Not sig
0.485	0.505	-0.2843245	-1.96	1.96	Not sig
101	101				

Question 38: Current, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	31	30.7	30.7
	More Important	46	45.5	45.5
	Critical	24	23.8	23.8
	Total	101	100.0	100.0

Question 38: Future, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	29	28.7	28.7
	More Important	40	39.6	39.6
	Critical	32	31.7	31.7
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.307	0.287	0.3111171	-1.96	1.96	Not sig
0.455	0.396	0.8495273	-1.96	1.96	Not sig
0.238	0.317	-1.2586901	-1.96	1.96	Not sig
101	101				

Question 38: Current, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	41	40.6	40.6
	More Important	29	28.7	28.7
	Critical	31	30.7	30.7
	Total	101	100.0	100.0

Question 38: Future, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	46	45.5	45.5
	More Important	35	34.7	34.7
	Critical	20	19.8	19.8
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.406	0.455	-0.7041102	-1.96	1.96	Not sig
0.287	0.347	-0.9182512	-1.96	1.96	Not sig
0.307	0.198	1.7971334	-1.96	1.96	Not sig
101	101				

Question 39: Current, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	42	41.6	41.6
	More Important	27	26.7	26.7
	Critical	32	31.7	31.7
	Total	101	100.0	100.0

Question 39: Future, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	83	82.2	82.2
	More Important	15	14.9	14.9
	Critical	3	3.0	3.0
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.416	0.822	-6.5398356	-1.96	1.96	Sig
0.267	0.149	2.0881952	-1.96	1.96	Sig
0.317	0.03	5.8199423	-1.96	1.96	Sig
101	101				

Question 39: Current, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	14	13.9	13.9
	More Important	53	52.5	52.5
	Critical	34	33.7	33.7
	Total	101	100.0	100.0

Question 39: Future, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	7	6.9	6.9
	More Important	62	61.4	61.4
	Critical	32	31.7	31.7
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.139	0.069	1.6403881	-1.96	1.96	Not sig
0.525	0.614	-1.2825175	-1.96	1.96	Not sig
0.337	0.317	0.3030351	-1.96	1.96	Not sig
101	101				

Question 39: Current, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	47	46.5	46.5
	More Important	22	21.8	21.8
	Critical	32	31.7	31.7
	Total	101	100.0	100.0

Question 39: Future, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	10	9.9	9.9
	More Important	25	24.8	24.8
	Critical	66	65.3	65.3
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.465	0.099	6.3270334	-1.96	1.96	Sig
0.218	0.248	-0.5046205	-1.96	1.96	Not sig
0.317	0.653	-5.0728043	-1.96	1.96	Sig
101	101				

Question 40: Current, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	56	55.4	55.4
	More Important	18	17.8	17.8
	Critical	27	26.7	26.7
	Total	101	100.0	100.0

Question 40: Future, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	84	83.2	83.2
	More Important	11	10.9	10.9
	Critical	6	5.9	5.9
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.554	0.832	-4.4918844	-1.96	1.96	Sig
0.178	0.109	1.4054593	-1.96	1.96	Not sig
0.267	0.059	4.1705014	-1.96	1.96	Sig
101	101				

Question 40: Current, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	7	6.9	6.9
	More Important	63	62.4	62.4
	Critical	31	30.7	30.7
	Total	101	100.0	100.0

Question 40: Future, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	5	5.0	5.0
	More Important	77	76.2	76.2
	Critical	19	18.8	18.8
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.069	0.05	0.5712312	-1.96	1.96	Not sig
0.624	0.762	-2.1503222	-1.96	1.96	Sig
0.307	0.188	1.9784233	-1.96	1.96	Sig
101	101				

Question 40: Current, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	36	35.6	35.6
	More Important	22	21.8	21.8
	Critical	43	42.6	42.6
	Total	101	100.0	100.0

Question 40: Future, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	10	9.9	9.9
	More Important	15	14.9	14.9
	Critical	76	75.2	75.2
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.356	0.099	4.5768251	-1.96	1.96	Sig
0.218	0.149	1.2718344	-1.96	1.96	Not sig
0.426	0.752	-4.9903336	-1.96	1.96	Sig
101	101				

Question 41: Current, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	28	27.7	27.7
	More Important	23	22.8	22.8
	Critical	50	49.5	49.5
	Total	101	100.0	100.0

Question 41: Future, Complexity Level II

		Frequency	Percent	Valid Percent
Valid	Least Important	21	20.8	20.8
	More Important	25	24.8	24.8
	Critical	55	54.5	54.5
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.277	0.208	1.1477814	-1.96	1.96	Not sig
0.228	0.248	-0.3338332	-1.96	1.96	Not sig
0.495	0.545	-0.7120948	-1.96	1.96	Not sig
101	101				

Question 41: Current, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	36	35.6	35.6
	More Important	28	27.7	27.7
	Critical	37	36.6	36.6
	Total	101	100.0	100.0

Question 41: Future, Complexity Level III

		Frequency	Percent	Valid Percent
Valid	Least Important	41	40.6	40.6
	More Important	17	16.8	16.8
	Critical	43	42.6	42.6
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.356	0.406	-0.732629	-1.96	1.96	Not sig
0.277	0.168	1.8785282	-1.96	1.96	Not sig
0.366	0.426	-0.873473	-1.96	1.96	Not sig
101	101				

Question 41: Current, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	36	35.6	35.6
	More Important	49	48.5	48.5
	Critical	16	15.8	15.8
	Total	101	100.0	100.0

Question 40: Future, Complexity Level IV

		Frequency	Percent	Valid Percent
Valid	Least Important	38	37.6	37.6
	More Important	58	57.4	57.4
	Critical	5	5.0	5.0
	Total	101	100.0	100.0

Current	Future	Computed z-value	Criterion tabled z-value(s) for two sided alternative at 5% level		Accept/ Reject Null Hypothesis
0.356	0.376	-0.2951101	-1.96	1.96	Not sig
0.485	0.574	-1.2722013	-1.96	1.96	Not sig
0.158	0.05	2.5544802	-1.96	1.96	Sig
101	101				